U.S. Department
of Transportation
**Federal Aviation
Administration**

SDR Summary

Service Difficulty Reporting

March 15, 1998 - March 21, 1998

GENERAL AVIATION, ZAC-327

You can improve Air Safety by reporting the problem when you see it!

SECTION

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II Domestic Service Difficulty Report

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ISSUE: 98-12

U.S. Department of Transportation
Federal Aviation Administration

SDR SUMMARY

General Aviation, ZAC-327

This summary includes domestic (United States) Service Difficulty Reports (SDRs) entered into the data base for aircraft weighing 12,500 lbs. and below. It also includes reports on aeronautical products (engines, propellers, and components), and all helicopters. A separate section for International SDRs for aircraft weighing 12,500 lbs. and under has also been included. Under a data exchange agreement, International SDRs are submitted to the FAA by the Civil Aviation Authority of other countries (currently, Canada - CAN, and Australia - AUS). All reports are sorted by aircraft make, model group (basic model), and Joint Aircraft System/Component (JASC) code. Within each aircraft model group, the specific model shown may vary, but similar types of reports will be grouped together and listed in ascending order by their JASC code. Each field contains all information submitted to the FAA. Some fields are not included in order to make the summary easier to read. Additional information may be obtained by referring to the "operator control number." Send your request to the Aviation Data Systems Branch, AFS-620 at the address or phone below.

The Regulatory Support Division (AFS-600) has established a "HomePage" on the Internet through which the same information is available. There is a large quantity of other information available through the AFS-600 HomePage such as the most current SDR system codes (i.e., Joint Aircraft System\Component Codes). The SDR Question and Answer Section of the Summary will also be transferred to the AFS-600 HomePage to simplify the process of preparing the SDR Summaries in the PDF format each week. There are "hot buttons" to take you to other locations and sites where FAA Flight Standards Service Information is available. The AFS-600 "HomePage" address is:

http://www.mmac.jccbi.gov/afs/afs600

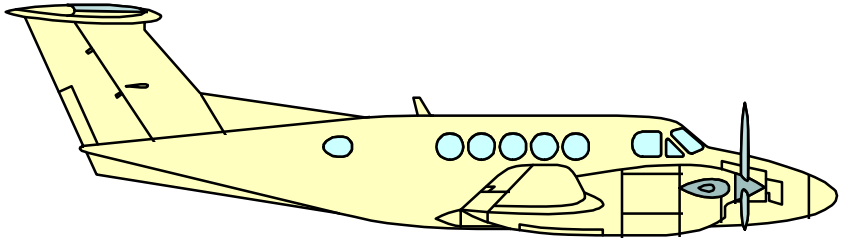
"The Service Difficulty Reports in this publication are derived from unverified information submitted by the aviation community without FAA verification for accuracy. The number of SDRs submitted is not an indication of the mechanical reliability or fitness of an airline or individual operator, and the information should not be used as such."

Comments are welcomed and may be directed to:

Federal Aviation Administration
Aviation Data Systems Branch, AFS-620
P.O. Box 25082
Oklahoma City, OK 73125-5029
Phone: (405) 954-4171, Fax: (405) 954-4748

Your continued participation is essential and is an integral part of ensuring aviation safety. Thank you for supporting the Service Difficulty Program! If you have any questions regarding this special notice you can contact John Jackson at (405) 954-6486, or Jim Gillespie at (405) 954-1141, or Blake McDonald at (405) 954-0307 in the Aviation Systems Branch (AFS-620). Their E-mail addresses are:

john_e_jackson@mmacmail.jccbi.gov **james_gillespie@mmacmail.jccbi.gov** **blake_mcdonald@mmacmail.jccbi.gov**



SIGNIFICANT OCCURRENCE REPORT

U.S. Department
of Transportation
Federal Aviation Administration

THE SIGNIFICANT OCCURRENCE REPORT

The Significant Occurrence Report is a compilation all of the star bordered reports that appear in the General Aviation Service Difficulty Report (SDR) Summary, ZAC-327. The Significant Occurrence Report is used to highlight industry problem areas to field inspectors and the aviation public.

Limited analysis is performed by the Aviation Data Systems Branch, AFS-620 during the preparation of the "Significant Occurrence Report", which is generated each week and is included in the front of the Air Carrier SDR Summary. Significant Reports are hand selected by AFS-620's inspectors based on the individual merit of each report. The criteria for selection includes, but is not limited to, items that indicate high failure rates; items related to accidents or incidents; or design or maintenance failures which may affect the safe operation of the aircraft.

In some cases, this limited analysis of SDR data leads to the preparation of information bulletins which are routed to the appropriate product certification office for further investigation of the problem. The end result may be the issuance of an airworthiness directive (AD) by the Aircraft Certification Service (AIR) if warranted.

The Significant Occurrence Report (section I) of the weekly SDR Summary is not intended to be a summary of all significant events and should not be used as such. We recommend that you review further the applicable sections of the SDR summary that may be of interest.

GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3252		BEECH				SHIMMY DAMPENER	BROKEN		5/23/93
		A65				58273	NOSE LDG GEAR		CA930531302
*****	(CAN) SHIMMY DAMPENER REINSTALLED BACKWARDS AFTER SERVICING. THIS CAUSED NOSE GEAR STRUT TO CRACK AND SEPARATE AT SHIMMY DAMPENER ATTACH POINT ALLOWING SHIMMY DAMPENER TO SWING FREELY AND BIND ON NOSE GEAR WHEEL WELL RESTRICTING OPERATION OF LANDING GEAR. EMERGENCY LANDING CARRIED OUT.								
3213	6010W	BEECH				SHOCK STRUT	JAMMED		10/22/97
	ME98	76				105384001	MLG		98ZZZX1057
*****	BOLTS ATTACHING THE UPPER SHOCK STRUT ASSY TO THE UPPER GEAR HOUSING HAD SEVERE STRESS IN THE THREAD AREA. THIS WAS CAUSED BY REPEATED OPERATIONS IN FLIGHT TRAINING. BOLTS FAILED ALLOWING GEAR LEG TO EXTEND AND UPON RETRACTION, JAMMED ON LOWER WING SKIN RESULTING IN A GEAR-UP (2 EXTENDED) LANDING. SUBMITTER SUGGESTED REMOVING BOLTS PERIODICALLY TO CHECK THREAD AREA FOR DISTRESS. HAVE FOUND 6 OTHERS IN FLEET TO HAVE SAME DAMAGE TO THREADS.								
7810	1568X	BEECH				EXHAUST STACK	CRACKED	39	2/19/98
KO1R	LJ1368	C90A				1099500001	LT ENG OTBD		98ZZZX1085
*****	INSPECTION FOUND LT ENGINE OUTBOARD EXHAUST STACK CRACKED AT DEICE TUBE. SECOND EVENT SINCE REPLACEMENT. PART TT: 39 HOURS.								
2840	95441	CESSNA				FUEL GAUGE	ERRORS	42	2/17/98
DSBR	15285896	152				C6695620113	LT/RT FUEL		98ZZZX1083
*****	UPON RETURNING FROM FLIGHT, PILOT COMPLAINED THE ACFT REQUIRED MORE FUEL TO FILL TANKS THAN GAUGES INDICATED. ASKED MAINT TO CHECK GAUGES FOR ACCURACY. FUEL WAS COMPLETELY DRAINED FROM A/C, AND GAUGES READ ONE-EIGHTH (LT) AND ONE-FOURTH (RT). GAUGES WERE INSTALLED IN KIT FORM (SK152-21B) ON 12-18-97, REPLACING ORIG EQUIPMENT. STEWART-WARNER SYSTEM. PROBLEM WAS FOUND AT THE WING ROOT CONNECTORS. NO APPARENT CORROSION OR DAMAGE WAS EVIDENT, SIMPLY MOVING THE CONNECTORS (WIGGLING THE 2 HALVES) VARIED THE READING ON THE FUEL GAUGES. THE CONNECTIONS WERE CLEANED, AND THE GAUGES READ NORMALLY.								
3233	6398V	CESSNA				ACTUATOR	CRACKED	4700	1/23/98
CE8R	172RG0660	172RG			12810013	98820152	MLG		98ZZZX1058
*****	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND BOTH HOUSINGS WERE FOUND CRACKED IN THE SAME AREA JUST BELOW THE BEARING PN S1997C7-8. BOTH ACTUATORS WERE REPLACED.								
2710		DHAV	PWA			AILERON PULLEY	JAMMED		6/9/93
		DHC6200	PT6A20				COCKPIT		CA930614305
*****	(CAN) ON FINAL CONTROL CHECK BEFORE TAKEOFF, AILERON SYSTEM HAD JAMMED AND WHEN FREED FELT STICKY - CORD FROM SPARE HEAD SET HAD JAMMED THE LT FLOOR LEVEL AILERON SYSTEM PULLEY BEHIND AND OUTBOARD OF THE CAPTAIN'S SEAT - THE GUARD WAS MISSING FROM THE PULLEY.								
5710	2227K	LUSCOM				WING ASSY	DAMAGED	2500	2/1/98
	4954	8A				082200	LT/RT WING		98ZZZX1051
*****	AIRCRAFT OPENED FOR ANNUAL AND FOUND SEVERAL RAT NESTS AND URINE DAMAGE IN BOTH WINGS (NORMALLY SEALED). LARGE RAT NEST AND URINE DAMAGE IN RT WING TRAILING EDGE. WASP/MUD DAUBER NEST IN RT LEADING EDGE ATTACHED TO SPAR CABLES. BIRD NEST IN LT WING. LUSCOMBE WING HAS NO ACCESS FOR ROUTINE INSPECTIONS. FOUND NESTS WHILE INSTALLING DLAHF INSPECTION ACCESS KIT.								
5347	6039P	PIPER	LYC			RAIL SUPPORT	CRACKED		3/5/98
	241135	PA24250	O540A1A5				PILOT SEAT		98ZZZX1080
*****	PILOT SEAT RAIL SUPPORT BRACKET CRACKED AT STA 77 AND STA 87. THE CRACKS WERE FOUND UNDER THE LEFT HAND SEAT RAIL IN THE FLANGE AREA AROUND THE NUT PLATES.								
2210	3527U	PIPER				SWITCH	INTERMITTENT	198	1/22/98
	317952141	PA31350				KA132	AUTOPILOT		98ZZZX1052
*****	ACCELERATOR SWITCH TESTS INERMITTENTLY IN AUTOPILOT SYSTEM ESPECIALLY IN COLD WEATHER.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3230	18TP	PIPER				DOWNLOCK ASSY	DEFECTIVE	5174	2/12/98
	347970431	PA34200T				9582900	NLG		98ZZZX1050
*****	DOWNLOCK SPRING WEAK, CAUSED DOWNLOCK KNUCKLE TO NOT GO TO OVER-CENTER LOCK POSITION. PIN HAD WEAR OF .005 INCH. COUPLE THIS WITH WEAK SPRING AND PLAY, ENOUGH TO ALLOW NLG TO COLLAPSE ON ROLL-OUT. FAA RECORDS SHOW SAME TYPE ACCIDENT 1974 - IN A SENECA I AIRCRAFT.								
8550	9284R	PIPER	CONT			BREATHER	FROZEN	232	2/5/98
RMMR	3449005	PA34220T	LTSIO360E				LT ENG OIL		98ZZZX1060
*****	PILOT REPORTED LOW OIL PRESSURE WARNING SOUNDED LEFT ENGINE, AND GAUGE INDICATED ZERO OIL PRESSURE AT APPROXIMATELY 'GEAR-UP' TIME OF TAKEOFF. LANDING WITHOUT INCIDENT. TROUBLESHOOTING DETERMINED TO BE FROZEN BREATHER. THIS SYSTEM HAS AIR/OIL SEPARATOR. PIPER IS IN PROCESS OF MODIFYING SYSTEM. ALL OPERATORS OF SENECA V AIRCRAFT SHOULD C/W THIS MODIFICATION WHEN AVAILABLE. ROUTING OF LT ENGINE BREATHER IS SLIGHTLY DIFFERENT THAN RT DUE TO AIR CONDITIONING COMPRESSOR BEING MOUNTED ON LT ENGINE. A LARGE PUDDLE OF OIL WAS FOUND AT LOCATION OF GROUND RUN. OIL WAS BLOWN THROUGH RETURN HOSE FROM SEPARATOR TO ENGINE.								
5342	317N	RHNFLU				FITTING	CRACKED	540	1/19/98
BD6R	017	EXTRA300					HORIZONTAL STAB		98ZZZX1076
*****	AIRFRAME WAS BEING STRIPPED OF FABRIC. HORIZONTAL STABILIZER AREA WOULD NORMALLY NOT BE VISIBLE AS THIS FABRIC IS GLUED AROUND THE TUBING IN THIS AREA. THIS ITEM IS COVERED UNDER SB 300-2-95.								
2750		ZLIN				DETENT PIN	MIGRATED	1100	4/22/97
		Z242L			Z14343110000	CSN221724	FLAP LEVER ASSY		CA970505011
*****	(CAN) BOTH COTTERPINS FOUND WORN OFF OF FLAP CNTL LEVER ASSY DETENT MECHANISM PIN. SUBSEQUENTLY- WASHERS FELL OFF, AND PIN MIGRATED OUT OF LEVER ABOUT .50 INCH. DURING PIN MIGRATION, REMNANTS OF THE COTTERPIN LEFT INSIDE-,HOLE CONTACTED, DETENT ROLLER'S BORE STOPPING PIN FROM MOVING ANY FURTHER. IF PIN HAD COME ALL THE WAY OUT WITH FLAPS SELECTED OUT OF FULL RETRACT, FLAP CONTRO L SURFACES WOULD HAVE RETRACTED TO FULL UP. COTTERPIN HOLE EDGES NOT CHAMFERED, SHARP EDGES COMBINED WITH SOFT MATERIAL OF PINS COULD ACCOUNT FOR ABNORMAL WEAR AND FAILURE: OTHER FLEET A/C CHECKED AND ONE DETENT MECHANISM PIN FOUND WITH A COTTERPIN MISSING RESULTING IN PIN MIGRATING PARTIALLY OUT.								

(End of GENERAL AVIATION SIGNIFICANT OCCURRENCE REPORT)

Run Date: 26-Mar-98

FEDERAL AVIATION ADMINISTRATION
SIGNIFICANT OCCURRENCE REPORT INDEX

Showing Specific Part Numbers and Aircraft Model by Year

FOR THE PERIOD OF: 3/15/98 To 3/21/98

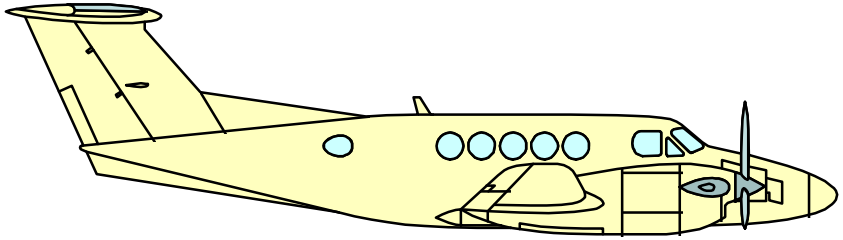
PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
082200														
WING ASSY	8A	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 082200		**1**	-	-	-	-	-	-	-	-	-	-	-	1
105384001														
SHOCK STRUT	76	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 105384001		**1**	-	-	-	-	-	-	-	-	-	-	-	1
1099500001														
EXHAUST STACK	C90A	**1**	-	-	-	-	-	-	-	-	-	-	-	1
STACK	C90A	**1**	-	-	-	-	-	-	-	-	1	-	-	-
TAIL PIPE	E90	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 1099500001		**3**	-	-	-	-	-	-	-	-	1	-	-	2
46A33														
PRIMARY VENTURI	unknown	**1**	-	-	-	-	-	-	-	-	-	-	-	1
VENTURI	150L	**1**	-	-	-	1	-	-	-	-	-	-	-	-
	172N	**2**	-	-	-	-	1	1	-	-	-	-	-	-
	172P	**2**	-	-	-	-	1	1	-	-	-	-	-	-
	unknown	**1**	-	-	-	1	-	-	-	-	-	-	-	-
TOTAL of # 46A33		**7**	-	-	-	2	2	2	-	-	-	-	-	1
58273														
SHIMMY DAMPENER	A65	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # 58273		**1**	-	-	-	-	-	-	-	-	-	-	-	1
9582900														
DOWNLOCK ASSY	PA34200T	**1**	-	-	-	-	-	-	-	-	-	-	-	1
DOWNLOCK LINK	PA34200	**2**	-	-	-	-	1	1	-	-	-	-	-	-

PART NUMBER / PART NAME	ACFT MODEL	TOTAL	YEAR 1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
9582900														
LINK	PA34200	**1**	-	-	-	1	-	-	-	-	-	-	-	-
LINK ASSY	PA34200	**2**	-	-	-	-	-	1	-	-	-	-	1	-
	PA34200T	**1**	-	-	-	-	-	-	-	-	-	-	1	-
TOTAL of # 9582900		**7**	-	-	-	1	1	2	-	-	-	-	2	1
98820152														
ACTUATOR	172RG	**5**	-	-	-	-	-	1	-	1	1	1	-	1
HOUSING	172RG	**1**	-	-	-	-	-	1	-	-	-	-	-	-
	R182	**1**	-	-	-	-	1	-	-	-	-	-	-	-
TOTAL of # 98820152		**7**	-	-	-	-	1	2	-	1	1	1	-	1
C6695620113														
FUEL GAUGE	152	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # C6695620113		**1**	-	-	-	-	-	-	-	-	-	-	-	1
CSN221724														
DETENT PIN	Z242L	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # CSN221724		**1**	-	-	-	-	-	-	-	-	-	-	-	1
KA132														
SWITCH	PA31350	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # KA132		**1**	-	-	-	-	-	-	-	-	-	-	-	1
NAS3544240														
ROD	650	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # NAS3544240		**1**	-	-	-	-	-	-	-	-	-	-	-	1
PW901A														
APU	747*	**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL of # PW901A		**1**	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL for ALL (24) PART NUMBERS:		**32**	-	-	-	3	4	6	-	1	2	1	2	13

END OF SIGNIFICANT OCCURRENCE REPORT INDEX

DOMESTIC

SERVICE DIFFICULTY REPORT



DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7910	5RZ	BEECH				TANK	CRACKED	400	1/20/98
CSLR	E1579	A36				77128251	ENGINE OIL		98ZZZX1067
	PILOT COMPLAINED OF OIL DRIPPING ON HANGAR FLOOR. INSPECTION REVEALED APPROXIMATELY .1250 INCH LONG CRACK IN THE SIDE OF THE OIL TANK. THERE WERE TWO CREASES IN THE TANK RUNNING IN A VERTICAL DIRECTION ON BOTH THE FORE AND AFT SIDE OF THE TANK. THE CRACK ORIGINATED AT THE TOP OF THE FORWARD CREASE. THIS OIL TANK IS PRESSURIZED AND EVEN THIS SMALL TANK CRACK CAUSED A SUBSTANTIAL AMOUNT OF OIL TO BE LOST.								
2410	100QD	BEECH				DRIVE COUPLING	FAILED	5000	3/5/98
	TH619	58				640922A	ALTERNATOR		98ZZZX1078
	SUBMITTER STATED ALTERNATOR DRIVE HAS NO TBO AND ON FAILURE OF THIS UNIT THE INTERNAL GEAR AND ENGINE OIL SUPPLY ARE FOULED WITH METAL AND DEBRIS WHICH COULD CAUSE A CATASTROPHIC ENGINE FAILURE. PART SHOULD HAVE LIFE-LIMIT. MEL SHOULD NOT ALLOW OPERATION WITHOUT INSPECTION.								
3213	6010W	BEECH				SHOCK STRUT	JAMMED		10/22/97
	ME98	76				105384001	MLG		98ZZZX1057
*****	BOLTS ATTACHING THE UPPER SHOCK STRUT ASSY TO THE UPPER GEAR HOUSING HAD SEVERE STRESS IN THE THREAD AREA. THIS WAS CAUSED BY REPEATED OPERATIONS IN FLIGHT TRAINING. BOLTS FAILED ALLOWING GEAR LEG TO EXTEND AND UPON RETRACTION, JAMMED ON LOWER WING SKIN RESULTING IN A GEAR-UP (2 EXTENDED) LANDING. SUBMITTER SUGGESTED REMOVING BOLTS PERIODICALLY TO CHECK THREAD AREA FOR DISTRESS. HAVE FOUND 6 OTHERS IN FLEET TO HAVE SAME DAMAGE TO THREADS.								
7810	1568X	BEECH				EXHAUST STACK	CRACKED	670	1/13/98
KO1R	LJ1368	C90A				1099500001	LT ENG OTBD		98ZZZX1087
	INSPECTION FOUND LT ENGINE OUTBOARD EXHAUST STACK CRACKED AT DEICE TUBE. REPLACED UNIT. PART TT 669.9 HOURS.								
7810	1568X	BEECH				EXHAUST STACK	CRACKED	230	11/25/97
KO1R	LJ1368	C90A				1099500001	RT ENG INBD		98ZZZX1086
	RT ENGINE INBOARD EXHAUST STACK CRACKED AT DEICE TUBE. PART TT 229.6 HOURS.								
7810	1568X	BEECH				EXHAUST STACK	CRACKED	39	2/19/98
KO1R	LJ1368	C90A				1099500001	LT ENG OTBD		98ZZZX1085
*****	INSPECTION FOUND LT ENGINE OUTBOARD EXHAUST STACK CRACKED AT DEICE TUBE. SECOND EVENT SINCE REPLACEMENT. PART TT: 39 HOURS.								
2840	95441	CESSNA				FUEL GAUGE	ERRORS	42	2/17/98
DSBR	15285896	152				C6695620113	LT/RT FUEL		98ZZZX1083
*****	UPON RETURNING FROM FLIGHT, PILOT COMPLAINED THE ACFT REQUIRED MORE FUEL TO FILL TANKS THAN GAUGES INDICATED. ASKED MAINT TO CHECK GAUGES FOR ACCURACY. FUEL WAS COMPLETELY DRAINED FROM A/C, AND GAUGES READ ONE-EIGHTH (LT) AND ONE-FOURTH (RT). GAUGES WERE INSTALLED IN KIT FORM (SK152-21B) ON 12-18-97, REPLACING ORIG EQUIPMENT. STEWART-WARNER SYSTEM. PROBLEM WAS FOUND AT THE WING ROOT CONNECTORS. NO APPARENT CORROSION OR DAMAGE WAS EVIDENT, SIMPLY MOVING THE CONNECTORS (WIGGLING THE 2 HALVES) VARIED THE READING ON THE FUEL GAUGES. THE CONNECTIONS WERE CLEANED, AND THE GAUGES READ NORMALLY.								
3233	5177R	CESSNA				ACTUATOR	CRACKED	5500	1/19/98
CE8R	172RG0045	172RG			12810013	98820152	LT MLG		98ZZZX1056
	DURING A 100-HOUR INSPECTION, THE RIGHT MAIN LANDING GEAR ACTUATOR ASSEMBLY PN 9882015-2 ATTACH BOLT WAS FOUND LOOSE WHICH ALLOWED THE ACTUATOR TO HAVE MOVEMENT DURING RETRACTION AND EXTENSION. UPON FURTHER INSPECTION OF THE ACTUATOR HOUSING PN 1281001-3, A CRACK WAS FOUND UNDER THE BEARING CUPS PN S1997C-8 ON BOTH SIDES OF THE HOUSING. INSPECTION OF THE LEFT MAIN GEAR ACTUATOR REVEALED SIMILAR CRACKS; THUS, REQUIRING REPLACEMENT OF BOTH ACTUATORS WITH SERVICEABLE UNITS.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3233	5177R	CESSNA				ACTUATOR	CRACKED	5500	1/19/98
CE8R	172RG0045	172RG			12810013	98820152	RT MLG		98ZZZX1055
	DURING A 100-HOUR INSPECTION, THE RIGHT MAIN LANDING GEAR ACTUATOR ASSEMBLY PN 9882015-2 ATTACH BOLT WAS FOUND LOOSE WHICH ALLOWED THE ACTUATOR TO HAVE MOVEMENT DURING RETRACTION AND EXTENSION. UPON FURTHER INSPECTION OF THE ACTUATOR HOUSING PN 1281001-3, A CRACK WAS FOUND UNDER THE BEARING CUPS PN S1997C-8 ON BOTH SIDES OF THE HOUSING. INSPECTION OF THE LEFT MAIN GEAR ACTUATOR REVEALED SIMILAR CRACKS; THUS, REQUIRING REPLACEMENT OF BOTH ACTUATORS WITH SERVICEABLE UNITS.								
3233	4634V	CESSNA				ACTUATOR	CRACKED	4100	1/29/98
CE8R	172RG0344	172RG			12810013	98820153	LT MLG		98ZZZX1054
	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND BOTH HOUSINGS WERE FOUND CRACKED IN THE SAME AREA JUST BELOW THE BEARING PN S1997C7-8. BOTH ACTUATORS WERE REPLACED.								
3233	4634V	CESSNA				ACTUATOR	CRACKED	4100	1/29/98
CE8R	172RG0344	172RG			12810013	98820153	RT MLG		98ZZZX1053
	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND BOTH HOUSINGS WERE FOUND CRACKED IN THE SAME AREA JUST BELOW THE BEARING PN S1997C7-8. BOTH ACTUATORS WERE REPLACED.								
3233	115HM	CESSNA				ACTUATOR	CRACKED	7181	1/24/98
CE8R	172RG0490	172RG			12810013	12810013	MLG		98ZZZX1049
	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION RESULTING WITH ONE HOUSING FOUND CRACKED IN THE AREA JUST BELOW THE BEARING PN S1997C7-8. THE ACTUATOR WAS REPLACED.								
3233	40960	CESSNA				ACTUATOR	CRACKED	5498	1/23/98
CE8R	172RG0540	172RG			12810013	98820152	MLG		98ZZZX1073
	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND ONE HOUSING WAS FOUND CRACKED IN THE AREA JUST BELOW THE BEARING PN S1997C7-8. THE ACTUATOR WAS REPLACED.								
3233	6398V	CESSNA				ACTUATOR	CRACKED	4700	1/23/98
CE8R	172RG0660	172RG			12810013	98820152	MLG		98ZZZX1059
	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND BOTH HOUSINGS WERE FOUND CRACKED IN THE SAME AREA JUST BELOW THE BEARING PN S1997C7-8. BOTH ACTUATORS WERE REPLACED.								
3233	6398V	CESSNA				ACTUATOR	CRACKED	4700	1/23/98
CE8R	172RG0660	172RG			12810013	98820152	MLG		98ZZZX1058
*****	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND BOTH HOUSINGS WERE FOUND CRACKED IN THE SAME AREA JUST BELOW THE BEARING PN S1997C7-8. BOTH ACTUATORS WERE REPLACED.								
3233	9561B	CESSNA				ACTUATOR	CRACKED	7900	1/20/98
CE8R	172RG0881	172RG			12810013	98820152	RT MLG		98ZZZX1064
	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND BOTH HOUSINGS WERE FOUND CRACKED IN THE SAME AREA JUST BELOW THE BEARING PN S1997C7-8. BOTH ACTUATORS WERE REPLACED.								
3233	9561B	CESSNA				ACTUATOR	CRACKED	7900	1/20/98
CE8R	172RG0881	172RG			12810013	98820152	LT MLG		98ZZZX1063
	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND BOTH HOUSINGS WERE FOUND CRACKED IN THE SAME AREA JUST BELOW THE BEARING PN S1997C7-8. BOTH ACTUATORS WERE REPLACED.								
3233	9303D	CESSNA				ACTUATOR	CRACKED	5400	1/20/98
CE8R	172RG1113	172RG			12810013	98820152	RT MLG		98ZZZX1062
	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND BOTH HOUSINGS WERE FOUND CRACKED IN THE SAME AREA JUST BELOW THE BEARING PN S1997C7-8. BOTH ACTUATORS WERE REPLACED.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3233	9303D	CESSNA				ACTUATOR	CRACKED	5400	1/20/98
CE8R	172RG1113	172RG			12810013	98820152	LT MLG		98ZZZX1061
	DURING A 100-HOUR INSPECTION, BOTH MAIN LANDING GEAR ACTUATOR HOUSINGS PN 1281001-3 WERE INSPECTED AS PART OF A FLEET INSPECTION AND BOTH HOUSINGS WERE FOUND CRACKED IN THE SAME AREA JUST BELOW THE BEARING PN S1997C7-8. BOTH ACTUATORS WERE REPLACED.								
3252	741CC	CESSNA				DAMPENER	SEIZED	26	2/21/98
IW1R	5250227	525				63430013	NLG		98ZZZX1088
	OPERATOR REPORTED NOSE WHEEL STEERING PULLED TO THE LEFT WHEN INDICATING STRAIGHT (RUDDER PEDALS IN NEUTRAL). FOUND NOSE TIRE SEVERELY SCUFFED ON CENTERLINE OF TREAD. ATTEMPTS TO MANUALLY TURN NOSE WHEEL FOUND SHIMMY DAMPENER FROZEN IN PLACE. REPLACED NOSE TIRE AND SHIMMY DAMPENER, SYSTEM OPERATED NORMALLY.								
5710	2227K	LUSCOM				WING ASSY	DAMAGED	2500	2/1/98
	4954	8A				082200	LT/RT WING		98ZZZX1051
*****	AIRCRAFT OPENED FOR ANNUAL AND FOUND SEVERAL RAT NESTS AND URINE DAMAGE IN BOTH WINGS (NORMALLY SEALED). LARGE RAT NEST AND URINE DAMAGE IN RT WING TRAILING EDGE. WASP/MUD DAUBER NEST IN RT LEADING EDGE ATTACHED TO SPAR CABLES. BIRD NEST IN LT WING. LUSCOMBE WING HAS NO ACCESS FOR ROUTINE INSPECTIONS. FOUND NESTS WHILE INSTALLING DLAHF INSPECTION ACCESS KIT.								
5347	6039P	PIPER	LYC			RAIL SUPPORT	CRACKED		3/5/98
	241135	PA24250	O540A1A5				PILOT SEAT		98ZZZX1080
*****	PILOT SEAT RAIL SUPPORT BRACKET CRACKED AT STA 77 AND STA 87. THE CRACKS WERE FOUND UNDER THE LEFT HAND SEAT RAIL IN THE FLANGE AREA AROUND THE NUT PLATES.								
3230	18TP	PIPER				DOWNLOCK ASSY	DEFECTIVE	5174	2/12/98
	347970431	PA34200T				9582900	NLG		98ZZZX1050
*****	DOWNLOCK SPRING WEAK, CAUSED DOWNLOCK KNUCKLE TO NOT GO TO OVER-CENTER LOCK POSITION. PIN HAD WEAR OF .005 INCH. COUPLE THIS WITH WEAK SPRING AND PLAY, ENOUGH TO ALLOW NLG TO COLLAPSE ON ROLL-OUT. FAA RECORDS SHOW SAME TYPE ACCIDENT 1974 - IN A SENECA I AIRCRAFT.								
5342	317N	RHNFLU				FITTING	CRACKED	540	1/19/98
BD6R	017	EXTRA300					HORIZONTAL STAB		98ZZZX1076
*****	AIRFRAME WAS BEING STRIPPED OF FABRIC. HORIZONTAL STABILIZER AREA WOULD NORMALLY NOT BE VISIBLE AS THIS FABRIC IS GLUED AROUND THE TUBING IN THIS AREA. THIS ITEM IS COVERED UNDER SB 300-2-95.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3416	8587X	BELL				ENCODER	FAILED		3/5/98
HEEA	51464	206L3				A30	COCKPIT		HEEA0013314
	NO VALID OUTPUT FROM ENCODER.								
3421	2753F	BELL				INDICATOR	MALFUNCTION		3/5/98
HEEA	2729	206B3				5040006914	COCKPIT		HEEA0013310
	ATTITUDE INDICATOR SLOW TO REACT TO MOVEMENT.								
6710	39122	BELL				ACTUATOR	STUCK		3/4/98
HEEA	3312	206B3				206062721113	M/R		HEEA0013293
	ACTUATOR STUCK ON HIGH SIDE.								
7230	1076Y	BELL	ALLSN			SHROUD HOUSING	MIS MFG		3/5/98
HEEA	45380	206L1	250C30P			23038162	ENGINE		HEEA0013330
	RECEIVED SHROUD HOUSING AND UNABLE TO OBTAIN THROAT CLEARANCE BETWEEN SHROUD AND IMPELLER. NOTE: TRIED ON SEVERAL IMPELLERS. INSTALLED A DALLAS AIRMOTIVE OVERHAULED SHROUD ASSY.								
2210	3208H	BELL				PANEL ASSY	MALFUNCTION		3/4/98
HEEA	31304	212				574074140003	SCAS SYS		HEEA0013287
	SCAS LIGHT GOES OUT. CHANNEL LOW.								
2562	1079U	BELL				EPIRB	DEFECTIVE		3/5/98
HEEA	31122	212				ACRRLB21	EMERG LOCATOR		HEEA0013325
	EPIRB CASE IS SWOLLEN. CORROSION IN ANTENNA MOUNT.								
2210	59806	BELL				AMPLIFIER ASSY	FAILED		3/5/98
HEEA	28140	214ST				214074305105	AUTOPILOT FBWE		HEEA0013319
	DROPS OFF LINE. TIME SINCE REPAIR 0:00.								
2434	3897N	BELL				GENERATOR	FAILED		3/5/98
HEEA	28106	214ST				214175150105	DC SYS		HEEA0013322
	GENERATOR FAILED.								
2730	59806	BELL				ACTUATOR ASSY	DEFECTIVE		3/5/98
HEEA	28140	214ST				214001970107	ELEV		HEEA0013306
	ELEVATOR FALLS OFF LINE.								
2822	5748M	BELL				CARTRIDGE	FAILED	360	3/4/98
HEEA	28102	214ST				9A1746	FUEL BOOST		HEEA0013276
	INOPERATIVE/ POPS CIRCUIT BREAKER.								
2932	59806	BELL				SWITCH	FAILED		3/5/98
HEEA	28140	214ST				205076044009	HYD PRESS		HEEA0013326
	HYD PRESSURE SWITCH INOPERATIVE.								
3020	5748M	BELL				CONTROL UNIT	FAILED		3/5/98
HEEA	28102	214ST				214175396101	ENG INLET		HEEA0013321
	ENGINE INLET WILL NOT HEAT.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3340	59806	BELL				LIGHT	FAILED		3/5/98
HEEA	28140	214ST				7028501	STROBE		HEEA0013323
	STROBE LIGHT POPS CIRCUIT BREAKER.								
3414	5748M	BELL				INDICATOR	DEFECTIVE		3/4/98
HEEA	28102	214ST				214175299107	COCKPIT		HEEA0013273
	AIR SPEED INDICATOR READING HIGH.								
3417	6957Y	BELL				AIR DATA COMPT	FAILED		3/5/98
HEEA	28139	214ST				214175421101	COCKPIT		HEEA0013320
	VNC LIGHT COMES ON ON CO-PILOTS SIDE.								
3421	59806	BELL				INDICATOR	FAILED		3/4/98
HEEA	28140	214ST				222375033107	COCKPIT		HEEA0013264
	ATTITUDE INDICATOR ROLL ERECTION RATE SLOW. TIME SINCE REPAIR 0:00.								
3421	59806	BELL				INDICATOR	PRECESSES		3/5/98
HEEA	28140	214ST				222375033107	COCKPIT		HEEA0013324
	PRECESSES ABOUT 8 DEGREES ON FLIGHT LINE DURING GROUND CHECK. TIME SINCE REPAIR 0:00.								
6330	3897N	BELL				HELPER SPRING	DEFECTIVE		3/4/98
HEEA	28106	214ST				214031617113	NODAL BEAM		HEEA0013260
	NODAL BOUNCE. FOUND HELPER SPRING DEFECTIVE								
6330	3897N	BELL				PLATE ASSY	TORN		3/5/98
HEEA	28106	214ST				214031614128	XMSN		HEEA0013316
	PLATE ASSY TORN.								
6330	3897N	BELL				PLATE ASSY	DEFECTIVE		3/5/98
HEEA	28106	214ST				214031614128	M/R XMSN		HEEA0013315
	A/C EXPERIENCING EXCESSIVE BOUNCE IN LET DOWN.								
6330	3897N	BELL				HELPER SPRING	DELAMINATED		3/4/98
HEEA	28106	214ST				214031617113	NODAL BEAM		HEEA0013261
	DELAMINATED.								
7714	3897N	BELL				INDICATOR	DEFECTIVE		3/5/98
HEEA	28106	214ST				214175251107	TRIPLE TACH		HEEA0013309
	NR2 NEEDLE 2% ABOVE OTHER NEEDLES.								
7714	59806	BELL				INDICATOR	FAILED		3/5/98
HEEA	28140	214ST				214175249101	COCKPIT		HEEA0013307
	RPM NEEDLE STUCK AT ZERO.								
2210	2014K	BELL				TARSYN	FAILED		3/4/98
HEEA	33020	412				2593996333	COCKPIT		HEEA0013288
	HSI INOPERATIVE. STAYS AT 270 DEGREES AND NR2 PITCH HARD OVER. TIME SINCE REPAIR 50:30.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
2210	2298Z	BELL				TARSYN	FAILED		3/4/98
HEEA	33077	412				2593996333	COCKPIT		HEEA0013289
	FAILED TEST 1.1 ON SST. NO DG VALID.								
2210	2149S	BELL				TARSYN	FAILED		3/4/98
HEEA	36002	412				2593996444	COCKPIT		HEEA0013290
	FAILED TEST 1.1 ON SST. NO DG VALID. TIME SINCE REPAIR 28:35.								
2211	3893S	BELL				COMPUTER	FAILED		3/4/98
HEEA	33022	412				7000298901	AFCS		HEEA0013270
	COMPUTER WILL NOT RELEASE LATERAL AXIS BRAKE MOTOR.								
2211	141PH	BELL				COMPUTER	FAILED		3/4/98
HEEA	33197	412				7000298901	AFCS		HEEA0013271
	NR2 HP WILL NOT ENGAGE.								
2425	293CA	BELL				INDICATOR	FAILED		3/4/98
HEEA	33005	412				209070263003	DUAL VOLTS		HEEA0013284
	AC NEEDLE STICKS AND DC READS HIGH.								
2437	2261D	BELL				INDICATOR	DEFECTIVE		3/4/98
HEEA	33076	412				209070263003	DC VOLTS		HEEA0013283
	DUAL VOLTAGE INDICATOR READS HIGH ON LOW END.								
2841	3893N	BELL				INDICATOR	ERRATIC		3/4/98
HEEA	33010	412				4814815	FUEL QTY		HEEA0013268
	INDICATOR LEFT FUEL QTY. NEEDLE ERRATIC.								
2841	3893P	BELL				INDICATOR	INTERMITTENT		3/4/98
HEEA	33012	412				393008047	FUEL QTY		HEEA0013275
	DROPPING TO ZERO INTERMITTENTLY.								
3213		BELL				CAP ASSY	WORN		3/5/98
HEEA		412				412030437103	SKID AFT		HEEA0013328
	CAP ASSY AFT RUBBER IS WORN.								
3213	5759N	BELL				CAP ASSY	WORN		3/5/98
HEEA	33002	412				412030437103	SKID AFT		HEEA0013329
	CAP ASSY AFT RUBBER WORN.								
3340	293CA	BELL				LIGHT	FAILED		3/4/98
HEEA	33005	412				7028521	STROBE		HEEA0013294
	STROBE LIGHT NO OFF AND ON OPERATION.								
3340	22347	BELL				LIGHT	INOPERATIVE		3/4/98
HEEA	36005	412				7028521	STROBE		HEEA0013295
	STROBE LIGHT INOPERATIVE.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3416	2148K	BELL				INDICATOR	INTERMITTENT		3/4/98
HEEA	36001	412				212070238003	COCKPIT		HEEA0013278
	NEEDLE INTERMITTENT WHEN CARD IS TURNED.								
3420	2261D	BELL				ISOLATION AMP	FAILED		3/4/98
HEEA	33076	412				412074030101	COCKPIT INST		HEEA0013274
	ISOLATION AMPLIFIER SMOKING.								
3424	3893L	BELL				RATE GYRO	FAILED		3/5/98
HEEA	33006	412				214075244001	COCKPIT		HEEA0013301
	TURN NEEDLE IS ERRATIC AND DOESN'T INDICATE PROPER RATE OF TURN.								
3424	3893P	BELL				GYRO	FAILED		3/4/98
HEEA	33012	412				71252	COCKPIT		HEEA0013269
	GYRO DEFECTIVE . WON'T PULL NEEDLE ON SLIP AND TURN INDICATOR.								
3424	33008	BELL				RATE GYRO	FAILED		3/5/98
HEEA	36004	412				214075244001	COCKPIT		HEEA0013298
	TURN RATE GYRO INDICATES 6 DEGREES LEFT.								
5260	108X	BELL				ACTUATOR	FAILED		3/4/98
HEEA	33115	412				SYLC502283	STEP		HEEA0013292
	STEP ACTUATOR INOPERATIVE.								
5260	141PH	BELL				ACTUATOR	FAILED		3/5/98
HEEA	33197	412				212075418103	STEP		HEEA0013327
	STEP ACTUATOR POPS CIRCUIT BREAKER.								
6340	107X	BELL				LIMIT DETECTOR	FAILED		3/5/98
HEEA	33113	412				214074280107	M/R		HEEA0013308
	CYCLIC CENTERING DOES NOT FUNCTION. RPM LIMIT DETECTOR FAULT.								
6710	23023	BELL				ACTUATOR ROTARY	INTERMITTENT		3/4/98
HEEA	33080	412				214001347005	M/R		HEEA0013291
	ROTARY ACTUATOR INTERMITTENT OPERATION.								
7250	21498	BELL	PWA			POWER SEC	LEAKING	15882	3/4/98
HEEA	36003	412	PT6T3B			3017600	ENGINE		HEEA0013203
	OIL LEAKING FROM COMPRESSOR AREA AND FORWARD COMBUSTION DRAIN.								
7712	3893L	BELL				INDICATOR	STICKS		3/4/98
HEEA	33006	412				412075008111	ENG TORQ		HEEA0013285
	NR1 TORQUE NEEDLE STICKS INTERMITTENTLY.								
7712	1202T	BELL				INDICATOR	DEFECTIVE		3/4/98
HEEA	33112	412				412075008111	TORQUE		HEEA0013286
	CURSER READS HIGHER THAN NR1 AND NR2 NEEDLE.								

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7714	3893L	BELL				INDICATOR	FAILED		3/5/98
HEEA	33006	412				412075010109	TRIPLE TACH		HEEA0013299
	NR1 NEEDLE LAGS AND NR2 NEEDLE OFF MORE THAN 2%.								
7714	1202T	BELL				INDICATOR	DEFECTIVE		3/5/98
HEEA	33112	412				412075010111	TRIPLE TACH		HEEA0013300
	TRIPLE TACH READS 1% LOW.								
7722	33008	BELL				INDICATOR	FLUCTUATES		3/5/98
HEEA	36004	412				212075067105	COCKPIT ITT		HEEA0013296
	ITT INDICATOR FLUCTUATES IN CRUISE FLIGHT.								
7810	141PH	BELL				EJECTOR ASSY	BROKEN		3/4/98
HEEA	33197	412				212061201011	EXH BRACKET		HEEA0013262
	LT EJECTOR ASSY AFT BRACKETS BROKEN.								
2562	54191	BOLKMS			NARCO	ELT	FAILED		3/5/98
HEEA	S804	BO105S				ELT910	COCKPIT		HEEA0013303
	NARCO ELT TRANSMITS SIGNAL INADVERTANTLY.								
2562	4302G	BOLKMS			NARCO	ELT	DEFECTIVE		3/5/98
HEEA	S853	BO105S				ELT910	COCKPIT		HEEA0013304
	NARCO ELT INTERMITTENT IN ARM POSITION.								
2562	4302G	BOLKMS			NARCO	ELT	FAILED		3/5/98
HEEA	S853	BO105S				ELT910	COCKPIT		HEEA0013305
	NARCO ELT TRANSMITTER COMES ON DURING FLIGHT.								
3421	5031U	BOLKMS				INDICATOR	PRECESSES		3/5/98
HEEA	S678	BO105S				5040017901	COCKPIT		HEEA0013302
	ATTITUDE INDICATOR PRECESSES AND SLOW ERECTION RATES.								
3444	86CH	BOLKMS				ALTIMETER	FAILED		3/4/98
HEEA	S557	BO105S				066304400	COCKPIT		HEEA0013181
	RADAR ALTIMETER NEEDLE WON'T REVOLVE IN REVOLVE MODE.								
6420	3071K	BOLKMS				CENTER CASE	WORN		3/4/98
HEEA	S859	BO105S				4638201003	T/R		HEEA0013279
	CENTER CASE WORN. TAIL ROTOR BORE 91.90MM.								
7714	86CH	BOLKMS				INDICATOR	HANGS		3/4/98
HEEA	S557	BO105S				DL41239	ENG RPM		HEEA0013282
	SINGLE RPM NEEDLE HANGS 10% WHEN MOTORING ENGINE.								
7714	8197X	BOLKMS				INDICATOR	DEFECTIVE		3/5/98
HEEA	S808	BO105S				DL43638	TRIPLE TACH		HEEA0013297
	TRIPLE TACH ALL NEEDLES HAVE STICKY OPERATION.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7923	724MB	BOLKMS				VALVE	FAILED		3/5/98
HEEA	S756	BO105S				209072433101	ENG OIL		HEEA0013312
	VALVE WILL NOT OPEN. INOPERATIVE.								
2211	7059J	BOLKMS				COMPUTER	DEFECTIVE		3/4/98
HEEA	7151	BK117B1				11788292	SPAS SYS		HEEA0013195
	SPAS COMPUTER POT IS STRIPPED OUT.								
2841	401PH	BOLKMS				INDICATOR	FAILED		3/5/98
HEEA	7050	BK117A3				1179405401	FUEL QTY		HEEA0013317
	NR1 SUPPLY INOPERATIVE.								
2210	4253S	SKRSKY				VERTICAL GYRO	DEFECTIVE		3/5/98
HEEA	760035	S76A				7660002113103	AFCS		HEEA0013311
	INTERMITTENT RADAR. AFCS VERT GYRO FAULT								
2422	1545X	SKRSKY				INVERTER	FAILED		3/4/98
HEEA	760050	S76A				7655003007105	AC SYS		HEEA0013281
	INVERTER CYCLES ON AND OFF.								
2422	5426U	SKRSKY				INVERTER	FAILED		3/4/98
HEEA	760167	S76A				PC173	AC SYS		HEEA0013265
	INVERTER DROPS OFF LINE AFTER ONE HOUR. TIME SINCE REPAIR 11:10.								
2810	31219	SKRSKY				FILLER VALVE	LEAKS		3/5/98
HEEA	760230	S76A				20C00212	FUEL SYS		HEEA0013318
	FILLER VALVE LEAKS OUT OF VALVE.								
2842	31217	SKRSKY				INDICATOR	FAILED		3/5/98
HEEA	760229	S76A				AT2062	FUEL TOTALIZER		HEEA0013313
	UPPER R/H DIGIT BUTTON WILL NOT SET.								
3414	792CH	SKRSKY				INDICATOR	FAILED		3/4/98
HEEA	760193	S76A				8502CS20LW	COCKPIT		HEEA0013280
	AIR SPEED INDICATOR 10 KNOTS HIGH.								
3414	792CH	SKRSKY				INDICATOR	STICKS		3/4/98
HEEA	760193	S76A				2002011293	COCKPIT		HEEA0013277
	AIR SPEED INDICATOR NEEDLE STICKS BELOW 20 KTS.								
6220	5128	SKRSKY				DAMPER	WEAK		3/4/98
HEEA	760181	S76A				7610608000050	M/R		HEEA0013266
	M/R DAMPER IS WEAK.								
6730	3122H	SKRSKY				ACTUATOR	FAILED		3/4/98
HEEA	760233	S76A				7630103902102	SERVO SYS		HEEA0013267
	ACTUATOR WILL ONLY RUN IN ONE DIRECTION.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7810	792CH	SKRSKY				EXHAUST COVER	CRACKED		3/4/98
HEEA	760193	S76A				7630507001044	ENGINE		HEEA0013263
	EXHAUST COVER CRACKED IN SEVERAL SPOTS.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7230	1076Y	BELL	ALLSN			SHROUD HOUSING	MIS MFG		3/5/98
HEEA	45380	206L1	250C30P			23038162	ENGINE		HEEA0013330
	RECEIVED SHROUD HOUSING AND UNABLE TO OBTAIN THROAT CLEARANCE BETWEEN SHROUD AND IMPELLER. NOTE: TRIED ON SEVERAL IMPELLERS. INSTALLED A DALLAS AIRMOTIVE OVERHAULED SHROUD ASSY.								
7250	21498	BELL	PWA			POWER SEC	LEAKING	15882	3/4/98
HEEA	36003	412	PT6T3B			3017600	ENGINE		HEEA0013203
	OIL LEAKING FROM COMPRESSOR AREA AND FORWARD COMBUSTION DRAIN.								
8500	6948S	CESSNA	CONT			ENGINE	FAILED	2660	2/27/98
LJQR	15067648	150H	O200A				POWER SECTION		98ZZZX1082
	ENGINE ASSY PRODUCING EXCESSIVE AMOUNTS OF METAL - MAIN OIL SCREEN. METAL CONTENT EXCESSIVE STEEL-BRONZE AND ALUMINUM. ENGINE RE-CHECK AFTER TWO ADDITIONAL GROUND RUNS. EXCESSIVE METAL PRESENT AFTER EACH RUN. CONTINENTAL ENGINE 0200A, 2,660.0 HRS TT.								
8530	6039P	PIPER	LYC			VALVE GUIDE	DEFECTIVE		3/5/98
	241135	PA24250	O540A1A5				CYL 1-4 EXH		98ZZZX1079
	CHECKED VALVE GUIDE CLEARANCE IAW SB 388B AND FOUND EXHAUST VALVES GUIDES IN CYLINDERS 1 AND 4 TO BE OUT OF SPECIFICATIONS. THE INTAKE AND EXHAUST VALVES IN BOTH CYLINDERS ALSO WERE BELOW MANUFACTURER'S SPECIFICATIONS.								
7414	8216T	PIPER	LYC		SLICK	IMPULSE COUPLING	FAILED		2/1/98
	328206037	PA32301	IO540K1G5		6351	M3333	ENGINE MAG		98ZZZX1081
	MAG IMPULSE COUPLING FAILED. REMOVED FROM ENGINE AT 469.8 HOURS SINCE NEW.								
8550	9284R	PIPER	CONT			BREATHER	FROZEN	232	2/5/98
RMMR	3449005	PA34220T	LTSIO360E				LT ENG OIL		98ZZZX1060
*****	PILOT REPORTED LOW OIL PRESSURE WARNING SOUNDED LEFT ENGINE, AND GAUGE INDICATED ZERO OIL PRESSURE AT APPROXIMATELY 'GEAR-UP' TIME OF TAKEOFF. LANDING WITHOUT INCIDENT. TROUBLESHOOTING DETERMINED TO BE FROZEN BREATHER. THIS SYSTEM HAS AIR/OIL SEPARATOR. PIPER IS IN PROCESS OF MODIFYING SYSTEM. ALL OPERATORS OF SENECA V AIRCRAFT SHOULD C/W THIS MODIFICATION WHEN AVAILABLE. ROUTING OF LT ENGINE BREATHER IS SLIGHTLY DIFFERENT THAN RT DUE TO AIR CONDITIONING COMPRESSOR BEING MOUNTED ON LT ENGINE. A LARGE PUDDLE OF OIL WAS FOUND AT LOCATION OF GROUND RUN. OIL WAS BLOWN THROUGH RETURN HOSE FROM SEPARATOR TO ENGINE.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3416	8587X	BELL				ENCODER	FAILED		3/5/98
HEEA	51464	206L3				A30	COCKPIT		HEEA0013314
	NO VALID OUTPUT FROM ENCODER.								
3421	2753F	BELL				INDICATOR	MALFUNCTION		3/5/98
HEEA	2729	206B3				5040006914	COCKPIT		HEEA0013310
	ATTITUDE INDICATOR SLOW TO REACT TO MOVEMENT.								
2210	3208H	BELL				PANEL ASSY	MALFUNCTION		3/4/98
HEEA	31304	212				574074140003	SCAS SYS		HEEA0013287
	SCAS LIGHT GOES OUT. CHANNEL LOW.								
2562	1079U	BELL				EPIRB	DEFECTIVE		3/5/98
HEEA	31122	212				ACRRLB21	EMERG LOCATOR		HEEA0013325
	EPIRB CASE IS SWOLLEN. CORROSION IN ANTENNA MOUNT.								
2210	2014K	BELL				TARSYN	FAILED		3/4/98
HEEA	33020	412				2593996333	COCKPIT		HEEA0013288
	HSI INOPERATIVE. STAYS AT 270 DEGREES AND NR2 PITCH HARD OVER. TIME SINCE REPAIR 50:30.								
2210	2298Z	BELL				TARSYN	FAILED		3/4/98
HEEA	33077	412				2593996333	COCKPIT		HEEA0013289
	FAILED TEST 1.1 ON SST. NO DG VALID.								
2210	2149S	BELL				TARSYN	FAILED		3/4/98
HEEA	36002	412				2593996444	COCKPIT		HEEA0013290
	FAILED TEST 1.1 ON SST. NO DG VALID. TIME SINCE REPAIR 28:35.								
2211	3893S	BELL				COMPUTER	FAILED		3/4/98
HEEA	33022	412				7000298901	AFCS		HEEA0013270
	COMPUTER WILL NOT RELEASE LATERAL AXIS BRAKE MOTOR.								
2211	141PH	BELL				COMPUTER	FAILED		3/4/98
HEEA	33197	412				7000298901	AFCS		HEEA0013271
	NR2 HP WILL NOT ENGAGE.								
3416	2148K	BELL				INDICATOR	INTERMITTENT		3/4/98
HEEA	36001	412				212070238003	COCKPIT		HEEA0013278
	NEEDLE INTERMITTENT WHEN CARD IS TURNED.								
3420	2261D	BELL				ISOLATION AMP	FAILED		3/4/98
HEEA	33076	412				412074030101	COCKPIT INST		HEEA0013274
	ISOLATION AMPLIFIER SMOKING.								
3424	3893L	BELL				RATE GYRO	FAILED		3/5/98
HEEA	33006	412				214075244001	COCKPIT		HEEA0013301
	TURN NEEDLE IS ERRATIC AND DOESN'T INDICATE PROPER RATE OF TURN.								

******* DENOTES SIGNIFICANT OCCURRENCE**

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3424	3893P	BELL				GYRO	FAILED		3/4/98
HEEA	33012	412				71252	COCKPIT		HEEA0013269
	GYRO DEFECTIVE . WON'T PULL NEEDLE ON SLIP AND TURN INDICATOR.								
3424	33008	BELL				RATE GYRO	FAILED		3/5/98
HEEA	36004	412				214075244001	COCKPIT		HEEA0013298
	TURN RATE GYRO INDICATES 6 DEGREES LEFT.								
2562	54191	BOLKMS			NARCO	ELT	FAILED		3/5/98
HEEA	S804	BO105S				ELT910	COCKPIT		HEEA0013303
	NARCO ELT TRANSMITS SIGNAL INADVERTANTLY.								
2562	4302G	BOLKMS			NARCO	ELT	FAILED		3/5/98
HEEA	S853	BO105S				ELT910	COCKPIT		HEEA0013305
	NARCO ELT TRANSMITTER COMES ON DURING FLIGHT.								
2562	4302G	BOLKMS			NARCO	ELT	DEFECTIVE		3/5/98
HEEA	S853	BO105S				ELT910	COCKPIT		HEEA0013304
	NARCO ELT INTERMITTENT IN ARM POSITION.								
3421	5031U	BOLKMS				INDICATOR	PRECESSES		3/5/98
HEEA	S678	BO105S				5040017901	COCKPIT		HEEA0013302
	ATTITUDE INDICATOR PRECESSES AND SLOW ERECTION RATES.								
3444	86CH	BOLKMS				ALTIMETER	FAILED		3/4/98
HEEA	S557	BO105S				066304400	COCKPIT		HEEA0013181
	RADAR ALTIMETER NEEDLE WON'T REVOLVE IN REVOLVE MODE.								
2211	7059J	BOLKMS				COMPUTER	DEFECTIVE		3/4/98
HEEA	7151	BK117B1				11788292	SPAS SYS		HEEA0013195
	SPAS COMPUTER POT IS STRIPPED OUT.								
2210	3527U	PIPER				SWITCH	INTERMITTENT	198	1/22/98
	317952141	PA31350				KA132	AUTOPILOT		98ZZZX1052
*****	ACCELERATOR SWITCH TESTS INERMITTENTLY IN AUTOPILOT SYSTEM ESPECIALLY IN COLD WEATHER.								
2210	4253S	SKRSKY				VERTICAL GYRO	DEFECTIVE		3/5/98
HEEA	760035	S76A				7660002113103	AFCS		HEEA0013311
	INTERMITTENT RADAR. AFCS VERT GYRO FAULT								
3414	792CH	SKRSKY				INDICATOR	STICKS		3/4/98
HEEA	760193	S76A				2002011293	COCKPIT		HEEA0013277
	AIR SPEED INDICATOR NEEDLE STICKS BELOW 20 KTS.								
3414	792CH	SKRSKY				INDICATOR	FAILED		3/4/98
HEEA	760193	S76A				8502CS20LW	COCKPIT		HEEA0013280
	AIR SPEED INDICATOR 10 KNOTS HIGH.								

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS

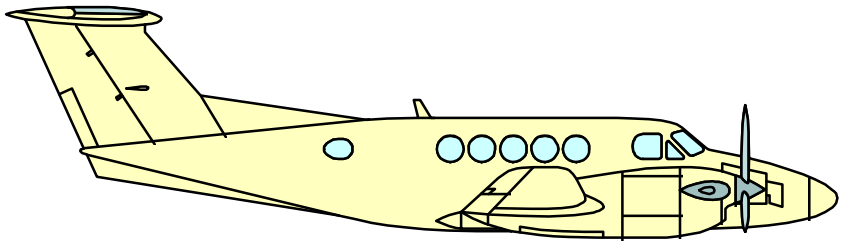
ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO

(There was no data for this report.)

(End of DOMESTIC SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)

INTERNATIONAL

SERVICE DIFFICULTY REPORT



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2821		BBAVIA				NIPPLE	WORN	5936	3/6/97
		7ECA			20911	112B	FIREWALL		CA970407005
	(CAN) GASCOLATOR FOUND LOOSE IN ITS MOUNTING BRACKET. NIPPLE REMOVED AND FOUND CHAFED 90 TO 95 PERCENT THROUGH THE WALL FROM THE FIREWALL AS THE NIPPLE PASSES THROUGH A HOLE IN FIREWALL. DESIGN OF GASCOLATOR DOES NOT PERMIT USE OF BULKHEAD FITTING TO SECURE UNIT AS IT PASSES THROUGH THE FIREWALL.								
2435		BEECH	PWA		LEARSIEGLER	BEARING	FAILED	195	5/12/93
		A100	PT6A28		23048018		STARTER/GEN		CA930518402
	(CAN) GENERATOR DROPPED OFF LINE IN-FLIGHT, BUT PILOT ABLE TO SELECT BACK ON. AFTER LANDING RESTART ATTEMPTED, STARTER DID NOT RESPOND. INSP FOUND REAR BEARING OF STARTER GENERATOR HAD FAILED CAUSING A LOT OF DAMAGE TO COOLING FAN.								
7603		BEECH	PWA			ROD END	DETACHED	4000	5/3/93
		A100	PT6A28			993800051	LT ENGINE		CA930513301
	(CAN) ROD END AT ENGINE SIDE OF IDLE CONTROL CABLE FOUND LOOSE AND DETACHED. PART TC: 3,943.								
3260		BEECH				WIRE	BROKEN	5380	5/27/93
		200BEECH					RT MLG DOWNLOCK		CA930609215
	(CAN) WHEN GEAR SELECTED DOWN, RT GEAR DOWN LIGHT DID NOT ILLUMINATE. WIRE TO RT MLG DOWNLOCK SWITCH BROKEN AT BEND WHERE DRAG BRACE JOINS TRUNNION. A LOT OF FLEXING AT THIS POINT.								
5313		BEECH	PWA			STRINGER	CRACKED	12365	12/5/92
		200BEECH	PT6A41				REAR PRESS.BLKHD		CA930531202
	(CAN) BULKHEAD STRINGER NR 8 LT, AFT OF REAR PRESSURE BULKHEAD FOUND CRACKED. BEECH CONTACTED, APPARENTLY A REPAIR AVAILABLE. WHILE WAITING FOR REPAIR, NR'S 10 LT AND 8, 9, AND 10 RT HAD CRACKS BECOME APPARENT.								
5510		BEECH				BOLT	WORN		9/20/97
		A23			16962000037	AN447	STAB TUBE		CA971118002
	(CAN) UPON REMOVAL OF STABILATOR ACTUATING TUBE BALANCE WEIGHT, DAMAGE TO THE ATTACHMENT BOLT WAS FOUND. THE DAMAGE SECTIONS OF THE BOLT CORRESPONDED WITH THE DIAMETER OF THE STABILATOR ACTUATING TUBE. THE DAMAGE APPEARS TO HAVE BEEN CAUSED BY REPETITIVE IMPACT OF THE BALANCE WEIGHT STRIKING THE MICARTA STOP BLOCK (WHICH LIMITS CONTROL SURFACE MOVEMENT). AIRCRAFT TT: 2,033 HOURS.								
5500		BEECH			BEECH	CUFF	MIS INSTALLED	87	5/17/93
		H35				35415415	STAB		CA930527201
	(CAN) CHERRY MAX RIVETS HOLDING CUFFS TO AIRCRAFT SKIN AT STAB NOT PROTRUDING OR HOLDING PROPERLY. HOLES FOR RIVETS INCORRECTLY COUNTERSUNK. AIRFRAME HOLES HAD BEEN ELONGATED. IMPROPER SEALANT AND GASKETS USED. AIRCRAFT TT: 3,328.								
3230		BEECH	CONT			ROD	CRACKED	1650	4/19/93
		58TC	TSIO520L			3581512547	RT MLG		CA930611408
	(CAN) ON GEAR DOWN SELECTION, CIRCUIT BREAKER TRIPPED 3 TIMES. ON FOURTH TRY, GEAR CAME DOWN OK. INSPECTION FOUND GEAR NOT COMPLETELY DOWN AND ROD ASSY BENT AND CRACKED.								
3252		BEECH				SHIMMY DAMPENER	BROKEN		5/23/93
		A65				58273	NOSE LDG GEAR		CA930531302
*****	(CAN) SHIMMY DAMPENER REINSTALLED BACKWARDS AFTER SERVICING. THIS CAUSED NOSE GEAR STRUT TO CRACK AND SEPARATE AT SHIMMY DAMPENER ATTACH POINT ALLOWING SHIMMY DAMPENER TO SWING FREELY AND BIND ON NOSE GEAR WHEEL WELL RESTRICTING OPERATION OF LANDING GEAR. EMERGENCY LANDING CARRIED OUT.								
5743		BEECH	PWA			SUPPORT ASSY	CRACKED	590	6/4/93
		C90A	PT6A21			912658	RT MLG DRAG LEG		CA930614302
	(CAN) CRACKS FOUND IN BOTH RT OUTBOARD AND RT INBOARD FLANGES OF THE SUPPORT ASSY OF THE RT MLG DRAG LEG SUPPORT ASSEMBLY. P/N OF INBOARD 9012006066. PART TC: 1,289.								

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5740		BEECH				WASHER	MIS INSTALLED		4/5/93
		D95A					WING BATHTUB		CA930518109
	(CAN) RADIUS WASHER IN WING LT LOWER, FORWARD, OUTBOARD BATHTUB FITTING FOUND INSTALLED BACKWARDS.								
2730		BEECH	PWA			CASTING	CRACKED	622	4/28/93
		99	PT6A27		115610010325	1156100153	ELEV TORQUE TUBE		CA930518103
	(CAN) SEVEN CRACKS FOUND AT TAPER PIN ENTRY HOLES ON ELEVATOR TORQUE TUBE. PINS SHOW EVIDENCE OF HAMMERING TO OBTAIN PROPER FIT AS THE DOMED TOPS OF THE PINS ARE FLATTENED AND DISTORTED MORE THAN NORMAL. SB 2145 COVERS INSPECTION. THESE PINS APPARENTLY FACTORY INSTALLED.								
2750		BEECH	PWA			GEARS	STRIPPED		3/1/97
		B99	PT6A28		1005240741	26	OUTBD DRIVE GEAR	4235	CA970327032
	(CAN) DURING MAINTENANCE WHILE OPERATING FLAPS, THE OUTBOARD FLAPS STOPPED OPERATING. FLAP GEARBOX FOUND WITH OUTBOARD DRIVE GEARS STRIPPED AND WORN EXCESSIVELY. PART TC: 7,787.								
3221		BEECH	PWA			BEARING BLOCK	CRACKED		1/8/97
		B99	PT6A28			11541294	NLG RT		CA970327028
	(CAN) RIGHT HAND NOSE GEAR BEARING BLOCK FOUND CRACKED AT BOTH RADII.								
3233		BEECH	PWA			MOTOR	FAILED		3/26/97
		99	PT6A28			1153825	MLG	3846	CA970401011
	(CAN) AFTER TAKEOFF AND GEAR SELECTED UP, THE GEAR DID NOT OPERATE. PILOT STARTED EMERGENCY PROCEDURES AND GEAR CAME UP. GEAR WOULD THEN NOT EXTEND AND THE EMERGENCY SYSTEM WAS USED. AIRCRAFT LANDED OK, AND GEAR MOTOR WAS REPLACED. PART TC: 7,003.								
3244		BEECH			GOODYEAR	TIRE	LEAKING		3/13/93
		C99					SIDEWALL		CA930608106
	(CAN) THREE TIMES DURING ASSY AND TESTING, TIRES FOUND LEAKING THROUGH SIDEWALL. TIRES ARE GOODYEAR FLIGHT CUSTOM II 18 X 5.5 WHICH HAVE BEEN RETREADED BY WILKERSON. SUGGEST SHOP SPRAY SIDEWALL WITH LEAK DETECTOR PRIOR TO INSTALLATION.								
7160		BNORM	LYC			HOSE DUCT	COLLAPSED	1435	3/30/93
		BN2A21	IO540K1B5			TU195MM660MMCC	INDUCTION LT		CA930518115
	(CAN) ON POWER APPLICATION FOR TAKEOFF, LT ENGINE TOPPED AT 2,200 RPM. ABORTED. INDUCTION HOSE/DUCT COLLAPSED. SB 95 CARRIED OUT 6.3 HRS PREVIOUS.								
2750		CESSNA				SWITCH BAR	LOOSE	7923	6/9/93
		150L			C3010020308		FLAP		CA930611419
	(CAN) PILOT REPORTED FLAP FUSE HAD BLOWN. FLAP SWITCH BAR WAS LOOSE IN FLAP TRANSMISSION HOUSING ALLOWING FLAP ACTUATOR TO OVERRUN FLAP SWITCH POSITION AND BOTTOM WITHOUT CONTACTING SWITCHES. WITH FLAP CONTROL SWITCH IN UP POSITION, MOTOR WOULD CONTINUE TO RUN AND OVERLOAD SYSTEM. SWITCH BAR IS THREADED INTO FLAP ACTUATOR HOUSING.								
5341		CESSNA				BEARING BLOCK	CORRODED		5/4/93
		150B				0512122	WING PICKUP		CA930517702
	(CAN) HEAVY CORROSION FOUND BETWEEN TWO LEGS OF BEARING BLOCK. PART CAN ONLY BE INSPECTED WHEN WINGS REMOVED. AIRCRAFT T: 4,071 HOURS.								
5530		CESSNA				FITTING	CRACKED	14200	5/26/93
		150				43193	VERT FIN		CA930611414
	(CAN) RT REAR ATTACHMENT FITTING FOUND CRACKED ON OUTBOARD HALF IN RADIUS BETWEEN LOWER ATTACHMENT BOLT AND SCREW. TWO DIFFERENT CRACKS ARE APPARENT. SUBMITTER HAD SEEN THIS PROBLEM PREVIOUSLY ON A CESSNA 150M.								
2810		CESSNA				FILLER TUBE	CRACKED	1400	3/11/97
		172M					RT WING OUTB		CA970401008
	(CAN) SMALL AMOUNT OF FUEL STAIN NOTED AT INBOARD LOWER TRAILING EDGE OF RIGHT HAND WING. USUALLY OCCURRED AFTER FILLING TANK. INSPECTION FOUND A CRACK IN THE WELD AT THE FILLER TUBE.								

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7160		CESSNA	LYC			DOOR	DAMAGED	5125	11/10/97
		172N	O320H2AD			5521696	CARB HEAT		CA971117005
	(CAN) PILOT REPORTED ENGINE NOT DEVELOPING FULL POWER. GROUND RUN CONFIRMED THIS. INSPECTION FOUND PIECE OF CARBURETOR HEAT VALVE SEAL MATERIAL (.25 INCH BY 3 INCHES) STUCK AROUND THE VENTURI OF THE CARBURETOR. THE PIECE WAS REMOVED AND THE SEAL WAS TRIMMED. THE ENGINE RUN-UP WAS NORMAL.								
7160		CESSNA	LYC			DOOR HINGE	BROKEN	3622	5/2/93
		177RG	IO360A1B6			16500196	INTAKE AIR BOX		CA930518602
	(CAN) PIANO WIRE HINGE ON INDUCTION SYSTEM AIR BOX DOOR HINGE FOUND BROKEN.								
2571		CESSNA				MOUNT	CRACKED		5/13/93
		A185F					BATTERY		CA930609203
	(CAN) BATTERY MOUNT STRUCTURE FOUND CRACKED IN THE AREA OF OUTBOARD ANGLE. AREA OF FORWARD BATTERY ATTACHEMENT ANCHOR NUT ALSO CRACKED. AIRCRAFT TT: 5,722 HOURS.								
2730		CESSNA				CABLE	CHAFED	2521	5/29/93
		A185F				511525	ELEVATOR LOWER		CA930609601
	(CAN) LOWER ELEVATOR CONTROL CABLE FOUND CHAFED AND WITH BROKEN STRANDS. LOCATED AT BULKHEAD STATION 140.0 AND AGAINST RUB STRIP P/N 07122012.								
5510		CESSNA				REINFORCEMENT	CRACKED	2813	5/11/93
		A185E			12320008	07321014	HORIZONTAL STAB		CA930518515
	(CAN) HORIZONTAL STABILIZER HINGE REINFORCEMENT BRACKET FOUND CRACKED AT THE LOWER SECTION ATTACHING TO RT HINGE ASSY P/N 0732101-10. SEVERAL RIVETS WERE MISSING OR SHEARED. THE STABILIZER WAS FOUND EXCESSIVELY LOOSE.								
2910		CESSNA				HYDRAULIC FLUID	CONTAMINATED		2/18/97
		TU206G					PUMP INLET		CA930526402
	(CAN) WHILE TROUBLESHOOTING FLOAT GEAR MOTOR INOP, FOUND HYDRAULIC FLUID HAD DIRT, FUNGI GROWTH (A BLACK MASS) COVERING THE PUMP INLET SCREEN. WIPAIRE SERVICE LETTER NR 15 REFERS TO THIS SUBJECT.								
7900		CESSNA				BOLT	SEPARATED		6/1/93
		U206			538727	MS27341	OIL SCREEN		CA930609222
	(CAN) LARGE OIL LEAK DISCOVERED AFTER LANDING. OIL COMING FROM BOLT RETAINING OIL SCREEN. BOLT HELD ONLY BY LOCKWIRE.								
2720		CESSNA				CABLE	WORN		5/2/93
		207				0510105230	RUDDER RH		CA930514207
	(CAN) RT RUDDER CABLE FOUND WORN THROUGH PORTIONS OF STRANDS WHERE CABLE PASSES UNDER PULLEYS. CLOSER EXAMINATION FOUND SEVERAL BROKEN STRANDS. ALSO, LT RUDDER CABLE AND DOWN ELEVATOR CABLES HAD TO BE REPLACED.								
5552		CESSNA				BRACKET	BROKEN	4314	5/30/93
		T207A				12321391	RT HORIZ STAB		CA930609603
	(CAN) IN CRUISE, AIRCRAFT STARTED TO CLIMB ON ITS OWN. PILOT TRIED TO TRIM NOSE DOWN BUT DID NOT WORK. FORCE EXERTED TO CONTROLS TO KEEP LEVEL. TRIM TAB ACTUATOR BRACKET ASSY FOUND CRACKED AND BROKEN OFF.								
3060		CESSNA				CLAMP	MIS INSTALLED	213	11/13/97
		402C				MS21919WCF5	DEICE HARNESS		CA971210014
	(CAN) DURING 100-OUR INSPECTION WITH BOTH PROPELLER SPINNERS REMOVED, SEVERAL WIRES (P/N C15013-0604 LT AND RT) ON THE DEICE HARNESS WERE FOUND BROKEN. THIS FAULT HAS BEEN CAUSED BY THE HARNESS CLAMP (P/N MS21919WCF5) INSTALLED IN THE INVERTED POSITION.								
3340		CESSNA			CUTLERHAM	SWITCH	BURNT	2040	5/4/93
		S550				MS3505822	LANDING LIGHT LT		CA930518607
	(CAN) LEFT HAND LANDING LIGHT SWITCH CONNECTIONS FOUND LOOSE CAUSING SWITCH TO OVERHEAT.								

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5341		DHAV				FITTING	CORRODED		4/30/93
		DHC2MK1				C2FS3773A	PORK CHOP FITTNG		CA930518512
	(CAN) PORK CHOP FITTING CORRODED. GRANULAR METAL AROUND BUSHING. LUBRICATION REMOVED BY FUEL SPILLAGE DURING REFUELING. AIRCRAFT TT: 21,665 HOURS.								
5510		DHAV				BRACKET	CRACKED		4/27/93
		DHC2MK1			C2TP203A	C2TP159A	HORIZ STAB LT		CA930518113
	(CAN) CRACK ON TOP OF THE LT FORWARD HORIZONTAL STABILIZER MOUNTING BRACKET. CRACK WAS APPROXIMATELY 2 INCHES LOWER DUE TO SEVERE CORROSION AT NUT PLATE. CORROSION NOT VISIBLE WHILE BRACKET INSTALLED DUE TO NOSE RIB OVERHANG OF THE BRACKET.								
5551		DHAV	PWA			FITTING	CRACKED		4/8/93
		DHC2MK1	R985AN14B				HORIZ STAB		CA930518104
	(CAN) CRACK RAN THROUGH HORIZ STAB FITTING FROM FRONT TO REAR THROUGH RIVET AND BOLT HOLES.								
3246		DHAV			EDO	STRUT	CORRODED		4/16/93
		DHC3			557170A	12712	FLOAT		CA930518510
	(CAN) UPPER END OF LT REAR STRUT ASSY SEVERELY CORRODED - INTERGRANULAR - INSIDE THE STRUT AT UPPER ATTACH END. THIS SECTION OF STRUT IS IN EXHAUST AIR STREAM.								
2710		DHAV	PWA			AILERON PULLEY	JAMMED		6/9/93
		DHC6200	PT6A20				COCKPIT		CA930614305
*****	(CAN) ON FINAL CONTROL CHECK BEFORE TAKEOFF, AILERON SYSTEM HAD JAMMED AND WHEN FREED FELT STICKY - CORD FROM SPARE HEAD SET HAD JAMMED THE LT FLOOR LEVEL AILERON SYSTEM PULLEY BEHIND AND OUTBOARD OF THE CAPTAIN'S SEAT - THE GUARD WAS MISSING FROM THE PULLEY.								
2820		DHAV	PWA			LINE	CRACKED		5/26/93
		DHC6100	PT6A20			C6DE1141	NR 2 ENG FUEL		CA930617102
	(CAN) NR 2 ENGINE FUEL DRAIN LINE CRACKED.								
5530		DHAV	PWA			ADAPTER	CRACKED	23534	10/16/97
		DHC6300	PT6A27			C6FSM12227	V STAB ATTACH		CA971113072
	(CAN) INSPECTION AT HMV FOUND THE FORWARD VERTICAL STABILIZER ATTACHMENT ADAPTER CRACKED. THE CRACK ORIGINATED AT THE RIGHT HAND BOLT HOLE EXTENDING .375 INCH INBOARD ON THE LOWER FACE AND .125 INCH VERTICALLY UP THE INBOARD SIDE OF THE BOLT HOLE. DEFECT IS CONSIDERED TO BE FATIGUE RELATED AS THERE WAS NO EVIDENCE OF CORROSION. ADAPTOR REPLACED WITH AN IMPROVED UNIT PER SB 6/516. AIRCRAFT T: 23,539 HOURS.								
7603		DHAV	PWA			VERNIER	STIFF		5/14/93
		DHC6100	PT6A20				NR 1 POWER LEVER		CA930609218
	(CAN) NR 1 POWER LEVER BECOMES VERY STIFF THROUGH THE REVERSE MID-POINT. FCU ARM GOING OVER CENTER-VERNIER ADJUSTED.								
2820		GULSTM	LYC			FUEL LINE	CORRODED	1435	5/5/93
		AA5A	O320E2G			54011212	FUEL SOV		CA930518517
	(CAN) FUEL LINE FROM FUEL SHUT-OFF VALVE TO FIREWALL FOUND CORRODED NEAR FIREWALL FITTING. POSSIBLY CAUSED BY PROXIMITY TO SCAT 2 HOSE DEFROSTING WINDSHIELD.								
3340		MOONEY				WIRE	CHAFED		5/8/93
		M20J				JKLL02A14	LANDING LIGHT		CA930518404
	(CAN) LANDING LIGHT POWER WIRE (25 AMP). PART OF WIRING HARNESS FROM CIRCUIT BREAKER PANEL CHAFED AND SHORTING TO GROUND.								
2750		MTSBSI	GARRTT			DRIVE SPLINE	CRACKED	112	5/13/93
		MU2B36A	TPE3315		035A9610013		FLAP CABLE SWAGE		CA930526403
	(CAN) DURING FLAP RIGGING, LT FLAP JAMMED WHEN DOWN SELECTED. SWAGED END OF DRIVE SPLINE ON CABLE OUTBOARD END WAS CRACKED ALLOWING SPLINE TO SEPARATE FROM CABLE. PART TC: 133.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3232		MTSBSI				ACTUATOR	FROZEN		3/27/97
		MU2B35				AA5C	GEAR DOOR		CA970401005
	(CAN) ON APPROACH, CREW SELECTED GEAR DOWN, FOLLOWING A MINUS 35 DEGREE TEMPERATURE CRUISE, AND NOTHING HAPPENED. GEAR SELECTED DOWN BY EMERGENCY EXTENSION. THE FORWARD GEAR DOOR ELECTRIC ACTUATOR WAS NOT WORKING. IT WAS TESTED AFTER REMOVAL FROM AIRCRAFT AND FOUND WORKING CORRECTLY. SUBMITTER NOTES IT IS CONSISTENT WITH PREVIOUS PROBLEMS OF MOISTURE INGRESS IN THE CLUTCH/BRAKE AREA AS IT FREEZES DURING CRUISE AT LOW TEMPERATURES AND JAMS THE MOTOR.								
2810		PARTEN				VALVE	BLOCKED	4092	6/4/93
		P68C				71591	WING TANKS		CA930611415
	(CAN) FUEL VENTING VALVE INSIDE LT AND RT WINGS FOUND PARTIALLY COVERED WITH MASKING TAPE AND FUEL TANK SEALANT. TAPE COULD HAVE PLUGGED FUEL TANK OUTLET.								
3234		PIPER	LYC			SELECTOR	BLOCKED		5/3/93
		PA60600	IO540K1J5			9800101	MLG		CA930513106
	(CAN) UNDERCARRIAGE SLOW TO EXTEND AND SYSTEM SLOW TO RECOVER PRESSURE AFTER GEAR EXTENSION. TROUBLESHOOTING EVENTUALLY FOUND PIECE OF RUBBER LODGED IN U/C SELECTOR VALVE. RUBBER MATERIAL IS SIMILAR TO INNER MATERIAL FROM FLEXHOSES WHICH HAD BEEN REPLACED 5 MONTHS PREVIOUS.								
5720		PIPER				FRONT STRUT	SPLIT		5/1/93
		PA12				1009800	LOWER 3 INCHES		CA930521108
	(CAN) LOWER END OF FRONT WING STRUT BULGED AND SPLIT OPEN BY FROZEN WATER. POINT OF WATER INGRESS INTO STRUT UNDETERMINED.								
2430		PIPER	LYC			WIRE	DISCONNECTED	6541	5/8/93
		PA23250	IO540C4B5			PF514GA	SW RT ALTERNATOR		CA930518514
	(CAN) SMOKE IN COCKPIT FROM UNDER RIGHT INSTRUMENT PANEL. ALTERNATOR RIGHT HAND SWITCH WIRE HAD DISCONNECTED AND SHORTED TO GROUND CAUSING ALTERNATOR INOP INDCATOR LIGHT ON. RT INOP ELECTRONIC SWITCH P/N PAC 587857 ALSO SHORTED AND DISABLED.								
7120		PIPER				ENGINE MOUNT	CRACKED	3688	4/29/93
		PA23250				332611	LEFT LOWER TUBE		CA930609204
	(CAN) RT ENGINE MOUNT CRACKED LOWER TUBE AFT OF LT MOUNT POSITION. REPAIRED PER AC 43-13A.								
2710		PIPER	LYC			CABLE	CORRODED	4363	4/20/93
		PA24250	O540A1A				AFT OF MLG LT		CA930514205
	(CAN) DURING LT WING INSPECTION, MOUSE NEST FOUND IN BAY AFT OF MAIN LANDING GEAR. AILERON CABLE ROUTED THROUGH THE SAME BAY FOUND CORRODED AND FRAYED. SAME CABLE ALSO CORRODED IN AREA OF WING ROOT.								
2400		PIPER				WIRE	LOOSE		11/19/97
		PA31350					MASTER SWITCH		CA971119005
	(CAN) TOTAL LOSS OF ELECTRICS ON TAKEOFF. POST-CHECK ON GROUND OF ELECTRICAL SYSTEM CARRIED OUT. NO FAULT FOUND. SUSPECT CAUSE OF ELECTRICAL FAILURE WAS A LOOSE GROUND WIRE.								
2730		PIPER				BOLT	WORN	10201	4/2/97
		PA31350				AN34	BUNGEE SPRING		CA970409012
	(CAN) WHILE DOING SB 626C, ON REMOVAL OF OLD ELEVATOR DOWN SPRING AND LINK, BOLT AN3-4 RETAINING LINK TO EYEBOLT ON TUBE ASSEMBLY, (P/N 40847-00) WAS FOUND QUITE WORN DUE TO MISSING WASHER BETWEEN NUT AND EYEBOLT AND IMPROPER TORQUING.								
3230		PIPER				HOSE	FAILED		5/20/93
		PA31350				MILH37944	NLG UP LINE		CA930608108
	(CAN) GEAR WOULD NOT EXTEND ON APPROACH. EMERGENCY GEAR EXTENSION BY HAND PUMP SUCCESSFUL. NOSE GEAR UP LINE HOSE PERFORATED AND HYDRAULIC MAIN RESERVOIR DEPLETED.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
3230		PIPER				CABLE	SEIZED	7021	5/27/93
		PA31350				554162	GEAR HANDLE		CA930608105
	(CAN) AFTER SELECTING GEAR DOWN, THE GEAR HANDLE REMAINED FULL DOWN INSTEAD OF POPPING BACK TO NEUTRAL. GEAR EXTENDED AND LOCKED NORMALLY. PILOT TRIED TO MOVE HANDLE BUT IT WAS SEIZED. LANDED OK. CABLE BETWEEN HANDLE AND POWER PACK HAD SEIZED DUE TO BREAKS IN CABLE AT BOTH ENDS.								
5280		PIPER	LYC			DOOR	CRACKED		5/19/93
		PA31				4752933	RT OUTB MLG		CA930527204
	(CAN) RT OUTBOARD MLG DOOR SKIN CRACKED BENEATH THE FORWARD HINGE. CRACK LENGTH APPROXIMATELY 4 INCHES. AIRCRAFT TT: 13,607 HOURS.								
5520		PIPER				HINGE BRACKET	CRACKED	4315	4/5/93
		PA31350				7172	ELEV OUTB		CA930608107
	(CAN) LT OUTBOARD ELEVATOR HINGE ASSEMBLY CRACKED. THIS P/N HINGE SUPPLIED WITH PIPER KIT 764054 AS A FIX TO ELIMINATE REPETITIVE INSPECTION OF AD 81-15-04R1 AND SB 687.								
7110		PIPER	LYC			COWLING	DEPARTED		3/25/93
		PA31350	TIO540J2BD			4183406	RT ENGINE		CA930518114
	(CAN) RIGHT ENGINE UPPER AND LOWER COWLINGS SEPARATED AND BLEW OFF DURING DESCENT. COWLINGS NOT RECOVERED. COWLINGS HAD BEEN REMOVED AND REINSTALLED 4.5 HRS PREVIOUS. RT ENGINE SHUTDOWN, BUT COULD NOT MAINTAIN ALTITUDE, SO ENGINE RESTARTED TO MAKE IT TO BOEING FIELD WASHINGTON.								
7600		PIPER				CABLE	FAILED		3/20/97
		PA31				1796915	LT RT ALT DOOR		CA970407010
	(CAN) ALTERNATE DOOR CABLES BOTH LEFT AND RIGHT, CABLE CYCLES ONCE, THEN PUSHES OUT OF FERREL, FAILS TO FUNCTION. REPLACED BOTH CABLES.								
8120		PIPER	LYC			TURBO CHARGER	DRAGGING		11/28/97
		PA31	TIO540A2C			466192	NR 2 ENGINE	1652	CA971216017
	(CAN) DURING CRUISE AT 13,000 FEET, THE CREW NOTICED A REDUCTION IN MANIFOLD PRESSURE ON NR 2 ENGINE THAT COULD NOT BE REGAINED WITH THE THROTTLE. THE AIRCRAFT DIVERTED AND LANDED WITHOUT INCIDENT. POST-FLIGHT INSPECTION FOUND THE TURBOCHARGER ROTATING GROUP WAS DRAGGING AND PREVENTING PROPER TURBO OPERATION. THE TURBOCHARGER WAS REPLACED. THE ENGINE GROUND RUN SERVICEABLE AND THE AIRCRAFT RETURNED TO SERVICE.								
8120		PIPER	LYC		GARRTT	DENSITY CONTROL	FAILED	115	5/10/93
		PA31350	LTIO540J2BD			LW12067	NR 2 ENGINE		CA930518102
	(CAN) PILOT REPORTED NORMAL TAKEOFF MANIFOLD PRESSURE. AFTER ROTATION, THE NR 2 ENGINE MANIFOLD PRESSURE INDICATED 60-65 INCHES MP. THE POWER WAS REDUCED TO CLIMB POWER AND THE FLIGHT COMPLETED USING NORMAL POWER SETTINGS. MAINTENANCE DID AN OVERBOOST INSPECTION AND FOUND THAT CYLINDER PRESSURE HAD DROPPED SIGNIFICANTLY. THE ENGINE WAS REMOVED FROM SERVICE. THE DENSITY CONTROLLER CONTROLS THE MAXIMUM.								
3246		PIPER			PARKERHANFIN	WHEEL HALF	GOUGED	2700	11/15/92
		PA421000			40176	763791	BEAD AREA		CA930518408
	(CAN) ON TIRE CHANGE, DAMAGE FOUND ON WHEEL TIRE BEAD FLANGE CAUSED BY SHARP OBJECT USED TO BREAK BEAD. IMPROPER MAINTENANCE PRACTICES. ALSO, SEVERAL OF THE WHEEL TIE BOLTS COUNTERSUNK WASHERS HAD BEEN INSTALLED INCORRECTLY. PART TC: 3,357.								
2710		SZD				ROLLER SHAFT	BROKEN	395	4/1/93
		SZD48					AIL PUSHROD SPRT		CA930611407
	(CAN) OWNER REPORTED EXCESSIVE PLAY IN AILERONS AND LOOSE OBJECTS INSIDE WING. RT AILERON PUSH/PULL ROD SUPPORT ROLLERS, DOWN SHAFT BROKEN AND ANOTHER CRACKED. ORIGNINAL SHAFTS MADE OF BRASS, REPLACEMENT PART HAS STAINLESS STEEL SHAFT.								

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2750		ZLIN				DETENT PIN	MIGRATED	1100	4/22/97
		Z242L			Z14343110000	CSN221724	FLAP LEVER ASSY		CA970505011

***** (CAN) BOTH COTTERPINS FOUND WORN OFF OF FLAP CNTL LEVER ASSY DETENT MECHANISM PIN. SUBSEQUENTLY- WASHERS FELL OFF, AND PIN MIGRATED OUT OF LEVER ABOUT .50 INCH. DURING PIN MIGRATION, REMNANTS OF THE COTTERPIN LEFT INSIDE-,HOLE CONTACTED, DETENT ROLLER'S BORE STOPPING PIN FROM MOVING ANY FURTHER. IF PIN HAD COME ALL THE WAY OUT WITH FLAPS SELECTED OUT OF FULL RETRACT, FLAP CONTRO L SURFACES WOULD HAVE RETRACTED TO FULL UP. COTTERPIN HOLE EDGES NOT CHAMFERED, SHARP EDGES COMBINED WITH SOFT MATERIAL OF PINS COULD ACCOUNT FOR ABNORMAL WEAR AND FAILURE: OTHER FLEET A/C CHECKED AND ONE DETENT MECHANISM PIN FOUND WITH A COTTERPIN MISSING RESULTING IN PIN MIGRATING PARTIALLY OUT.

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - AIRCRAFT)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6210		BELL				BLADE	CRACKED	1600	5/10/93
		205A1				2411251	M/R		CA930527101
	(CAN) MAIN ROTOR BLADE DENTED PREVIOUSLY. INSPECTION REVEALED CRACKS DEVELOPING FROM DENTS.								
6410		BELL				BLADE	TORN	4538	3/15/93
		205A1				212010750009	T/R		CA930518112
	(CAN) UNUSUAL NOISE HEARD FOLLOWED BY VIBRATION. UPON INSPECTION, FOUND PART OF BLADE MISSING. SUBMITTER STATED APPEARS THAT A BOND FAILED.								
2510		BELL	ALLSN			LAP BELT	LOOSE		5/18/93
		206B	250C20J			516152	CABIN		CA930602102
	(CAN) NEW SEAT BELT KIT HAS INCORRECT PLUG INSTALLATION LEADING TO BELTS SLIPPING LOOSE. BELL ASB 206-19-62 ISSUED TO CORRECT.								
5320		BELL				BRACKET	CRACKED	10334	5/8/93
		206B				206031201167	RADIUS OF BEND		CA930518609
	(CAN) FRETTING NOTICED DURING INSPECTION. DYE PENETRANT INSPECTION REVEALED CRACK ON RADIUS OF BEND.								
6320		BELL	ALLSN			GEAR CASE	CORRODED	8590	4/20/93
		206L	250C20			2060405311	M/R GR BOX		CA930518606
	(CAN) TOP MATING SURFACE CORRODED DUE TO LACK OF CORROSION PREVENTING COATING.								
6330		BELL	ALLSN			ISOLATION MOUNT	DAMAGED	1800	5/6/93
		206B	250C20			206030539101	M/R XMSN MT		CA930518516
	(CAN) WHILE PERFORMING PRACTICE AUTOROTATIONS, THE MAIN ROTOR SHAFT HIT THE ISOLATION MOUNT (LOW ROTO RPM).								
6720		BELL	ALLSN			TUBE ASSY	WORN		5/25/93
		206B	250C20B			2612117	T/R		CA930611101
	(CAN) UNAUTHORIZED CHAFING TAPE USED ON TUBE. TAPE WORN LEADING TO A POTENTIAL TAIL ROTOR CONTROL RESTRICTION.								
6720		BELL	ALLSN			BEARING	CRACKED		5/21/93
		206L	250C20B			2617651			CA930531602
	(CAN) SPHERICAL BEARING CRACKED THROUGH EDGE OF BOLT HOLE.								
7250		BELL	ALLSN		ALLSN	SEAL	FLARED OUT		5/26/93
		206B	250C20		6898734	689698	TURB GP FWD LAB		CA930604105
	(CAN) DURING OH INSPECTION OF THE TURBINE GP, FORWARD LAB SEAL (P/N 6896098) WAS FOUND TO BE FLARED OUT, POSSIBLY DUE TO CONTACT WITH THE STATIONARY SEAL AND CENTRIFUGAL FORCE. THE FLARED PORTION OF THE SEAL CUT INTO THE ABRADABLE MATERIAL AND STEEL SLEEVE BACKING OF THE STATIONARY SEAL.								
7230		BELL	PWA			RETAINING RING	FAILED	9914	10/16/97
		212	PT6T3		3017600	318173	ROTOR & STATOR	2372	CA971125006
	(CAN) POWER SECTION DEVELOPED COMPRESSOR STALLS. INSPECTION FOUND PIECES OF METAL INSIDE INTAKE PLENUM WITH BENT AND DAMAGED ROTOR AND STATOR VANES. THE SOURCE OF THE FOD WAS BELIEVED TO BE RETAINING RINGS AND PINS (P/N 30113032) WHICH LET GO AND WENT INTO THE COMPRESSOR WHEN THE STALLS OCCURRED. THE RETAINING RING AND PIN ARE FROM THE 1ST STAGE WHEEL REGION.								
7322		BELL	PWA		BENDIX	FUEL CONTRL UNIT	LEAK		10/23/97
		212	PT6T3			252499813	THROTTLE SHAFT	6	CA971113056
	(CAN) FUEL LEAKING FROM THE FUEL CONTROL UNIT THROTTLE SHAFT INTERCONNECT SIDE.								

******* DENOTES SIGNIFICANT OCCURRENCE**

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7600		BOEING	GE		GE	ACTUATOR	SHORTED	3660	6/7/93
		1072	CT581401				NR 2 ENG	686	CA930617104
	(CAN) PILOT REPORTED NR 2 ENGINE WOULD NOT RESPOND TO "BEEP" CONTROLS. ALL OPERATING PARAMETERS WERE NORMAL. AIRCRAFT RETURNED TO BASE WITH BOTH ENGINES RUNNING. NR 1 ENGINE SHUTDOWN NORMALLY. NR 2 ENGINE SHUTDOWN MANUALLY. MAINTENANCE FOUND NR 2 ENGINE CONDITION ACTUATOR HAD SHORTED.								
5412		BOLKMS	LYC			FIREWALL	CRACKED	1020	5/3/93
		BK117B1	LTS101750C1			1176625501	SPOT WELDS		CA930514203
	(CAN) NUMEROUS CRACKS ALONG VERTICAL FACE. ALL ORIGINATE AT SPOT WELDS. 20 CRACKS FOUND, ONE 6 INCHES LONG.								
6220		ENSTRM				RETAINING BOLT	BROKEN	1790	5/24/93
		F28F				LWB22658	DAMPER		CA930609220
	(CAN) LIGHT VERTICAL VIBRATION FELT IN CRUISE. UPON LANDING, PILOT FOUND INBOARD DAMPER RETAINING BOLT HAD BROKEN AND WAS PROTRUDING APPROXIMATELY 1.5 INCHES.								
6310		HUGHES	LYC			SPRING RETAINER	WORN	3888	5/4/93
		269C	HIO360D1A			269A54837	ENG COUPLING		CA930518605
	(CAN) EXCESSIVE WEAR ON CLUTCH CONTROL SPRING ASSY PER DESCRIPTION IN SCHWEIZER TECH BULLETIN B-256.1.								
6310		HUGHES	LYC			SPRING RETAINER2	WORN	5280	5/4/93
		269C	HIO360D1A			269A54837	ENG COUPLING		CA930518604
	(CAN) EXCESSIVE WEAR ON CLUTCH CONTROL SPRING ASSY PER DESCRIPTION OF SCHWEIZER TECH BULLETIN B-256.1.								
6310		HUGHES	LYC			SPRING RETAINER	WORN	5660	5/4/93
		269C	HIO360D1A			269A54837	ENG COUPLING		CA930518603
	(CAN) EXCESSIVE WEAR ON CLUTCH CONTROL SPRING ASSY PER DESCRIPTION OF SCHWEIZER TECH BULLETIN B-256.1.								
6220		HUGHES				LEADLAG LINK	LOOSE	2147	5/12/93
		369E				369D21200501	M/R		CA930518608
	(CAN) LEAD LAG LINK LUG HOLE BUSHING LOOSE.								
2421		SKRSKY			BENDIX	BEARING	FAILED	693	3/25/93
		S61N			28B13529A	15841535	AC GENERATOR		CA930518111
	(CAN) NOISE AND VIBRATION EXPERIENCED UPON LANDING. SMOKE SPARKS AND SMALL FLAME SEEN FROM AC GEN COOLING AIR OUTLET. LEFT AC GENERATOR FRONT BEARING FAILED CAUSING ROTOR TO CONTACT STATOR.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - HELICOPTERS)

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
7322		AIRTRC	PWA		BENDIX	CARBURETOR	FAILED		4/24/93
		AT301	R1340AN1			BAY9E1	ENGINE		CA930527202
	(CAN) ENGINE STOPPAGE DUE TO CARBURETOR MALFUNCTION.								
7250		BEECH	PWA			BOLT	WRONG PART		11/13/97
		A100	PT6A28			MS95744	CT SHROUD HOUSNG	1486	CA971118011
	(CAN) DURING AN HSI ON THE NR 2 ENGINE, THERE WERE SEVEN P/N MS9574-04 BOLTS FOUND INSTALLED ON THE COMPRESSOR TURBINE SHROUD HOUSING. THESE BOLTS ARE THE WRONG MATERIAL FOR THIS INSTALLATION. THE PROPER BOLTS SHOULD BE P/N 3012061 OR P/N MS9714-04.								
7250		BEECH	PWA			BLADE	FRACTURED	11869	10/28/97
		99	PT6A28			T12411	BLADE ROOT	3979	CA971113075
	(CAN) TEAR DOWN REPORT INDICATES A SINGULAR CT BLADE FAILURE DUE TO FATIGUE WAS THE SOURCE OF THE DAMAGE TO THE ENGINE. THE CT BLADE WAS A PMA PART. PART TC: 4,759.								
7261		BEECH	PWA			DIPSTICK	LOOSE		4/23/93
		B99	PT6A27				LT ENG OIL		CA930514204
	(CAN) 10 MINUTES INTO FLIGHT, CREW NOTICED LT TORQUEMETER FLUCTUATIONS AND OIL PRESSURE LOW. RT ENGINE THEN LOSING OIL PRESSURE. AIRCRAFT LANDED OK. BOTH DIPSTICKS FOUND UNLOCKED. LT ENGINE TOOK 5.5 QUARTS TO REFILL.								
7250		BELL	ALLSN		ALLSN	SEAL	FLARED OUT		5/26/93
		206B	250C20		6898734	689698	TURB GP FWD LAB		CA930604105
	(CAN) DURING OH INSPECTION OF THE TURBINE GP, FORWARD LAB SEAL (P/N 6896098) WAS FOUND TO BE FLARED OUT, POSSIBLY DUE TO CONTACT WITH THE STATIONARY SEAL AND CENTRIFUGAL FORCE. THE FLARED PORTION OF THE SEAL CUT INTO THE ABRADABLE MATERIAL AND STEEL SLEEVE BACKING OF THE STATIONARY SEAL.								
7230		BELL	PWA			RETAINING RING	FAILED	9914	10/16/97
		212	PT6T3		3017600	318173	ROTOR & STATOR	2372	CA971125006
	(CAN) POWER SECTION DEVELOPED COMPRESSOR STALLS. INSPECTION FOUND PIECES OF METAL INSIDE INTAKE PLENUM WITH BENT AND DAMAGED ROTOR AND STATOR VANES. THE SOURCE OF THE FOD WAS BELIEVED TO BE RETAINING RINGS AND PINS (P/N 30113032) WHICH LET GO AND WENT INTO THE COMPRESSOR WHEN THE STALLS OCCURRED. THE RETAINING RING AND PIN ARE FROM THE 1ST STAGE WHEEL REGION.								
7322		BELL	PWA		BENDIX	FUEL CONTRL UNIT	LEAK		10/23/97
		212	PT6T3			252499813	THROTTLE SHAFT	6	CA971113056
	(CAN) FUEL LEAKING FROM THE FUEL CONTROL UNIT THROTTLE SHAFT INTERCONNECT SIDE.								
8520		CESSNA	LYC			CRANKCASE	CRACKED		11/2/97
		172M	O320E2D			7826	UNDER NR 2 CYL	1924	CA971208001
	(CAN) DURING INSPECTION, OIL WAS NOTICED AT LOWER SIDE OF NR 2 AND NR 4 CYLINDERS, ENGINE WAS WASHED DOWN AND A GROUND RUN-UP WAS CARRIED OUT. AN OIL LEAK WAS FOUND AT THE NR 2 CYLINDER DRAIN TUBE/LINE. LINE WAS REPLACED AND GROUND RUN WAS CARRIED OUT SERVICEABLE. LATER (7 HOURS OF OPERATION) THE OIL LEAK WAS NOTED AGAIN IN THE SAME AREA. THE AREA WAS AGAIN CLEANED AND A POWER RUN WAS CARRIED OUT AND A CRACK WAS FOUND IN THE CRANKCASE IN THE AREA OF NR 2 CYLINDER.								
8530		CESSNA	LYC			VALVE GUIDES	WORN		4/10/90
		172N	O320D2J				NR 2 CYL		CA930521107
	(CAN) DURING NORMAL OPERATION IN CRUISE, THE ENGINE RAN ROUGH. AFTER LANDING, A COMPRESSION CHECK AND GROUND RUN GAVE NO INDICATION OF THE REASON FOR THE ROUGH RUNNING ENGINE. HOWEVER, OIL LEAK "WET SPOTS" SEEMED TO BE COMING FROM ENGINE SEAMS. THE ENGINE WAS REMOVED AND SENT TO REPAIR AND OVERHAUL. INSPECTION REVEALED THE VALVES ON NR 2 CYLINDER WERE NOT SEATING PROPERLY.								

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7322		CESSNA	CONT		MARVELSCHEB	CARBURETOR	FAILED	404	10/7/97
		180J	O470S			MA45	FLOAT		CA971125002
	(CAN) DURING INSPECTION FUEL WAS FOUND LEAKING FROM THE THROAT OF THE CARBURETOR. INVESTIGATION FOUND THE FLOAT ASSEMBLY BROKEN OFF. NO INDICATION OF A PROBLEM FROM THE AIRCRAFT OWNER REGARDING ENGINE OPERATION.								
7414		CESSNA	CONT		SLICK	COIL	FAILED		4/21/93
		A185F	IO520D		662		MAGNETO		CA930518106
	(CAN) MAGNETO FAILED. SLICK SERVICE BULLETIN SB 3-83A HAD NOT BEEN DONE.								
8530		CESSNA	CONT			VALVE STEM	WORN	165	5/16/93
		A185F	IO520D				ENG EXH-INT		CA930527203
	(CAN) METAL FOUND IN OIL FILTER. TRACES OF METAL IN VALVE COVERS COMING FROM VALVES. THE VALVE STEMS REVEALED EXCESSIVE WEAR.								
8520		CESSNA	CONT			CRANKCASE	CRACKED		4/18/90
		U206	IO520F				RT HALF NR 3 CYL		CA930521106
	(CAN) AIRCRAFT LANDED WITH LARGE OIL LEAK. ENGINE CLEAN AND TEST CARRIED OUT. NR 3 CYLINDER REMOVED TO FACILITATE INSPECTION. CRACK OF APPROXIMATELY TWO INCHES IN LENGTH FOUND TO PROPOGATE FROM LOWER CYLINDER HOLDDOWN STUD TO CRANKCASE. CRANKCASE REPLACED.								
8500		DHAV	PWA			ENGINE	FAILED	576	4/16/93
		DHC2MK1	R985AN14B				POWER SECT		CA930518105
	(CAN) AFTER FLIGHT ON ENGINE SHUTDOWN THE PILOT NOTED THE ENGINE CAME TO AN ABRUPT STOP. THE PILOT ATTEMPTED A RESTART AND IMMEDIATELY SHUT THE ENGINE DOWN DUE TO HIGH VIBRATION. DUE TO HIGH TIME, THE ENGINE WAS REMOVED FROM SERVICE.								
8530		DHAV	PWA			CYLINDER	FAILED	577	5/3/93
		DHC2MK1	R985AN14B			47518CA1	NR 7 EXH VLV		CA930518513
	(CAN) WHILE PERFORMING A 100 HR PERIODIC INSP, LOW DIFFERENTIAL PRESSURE FOUND ON NR 7 CYLINDER ASSEMBLY (20/80). LEAK AT EXHAUST VALVE. CYLINDER REMOVED AND EXHAUST VALVE GUIDE FOUND OFF ITS SEAT AND STUCK ON THE VALVE STEM. NEW OVERHAULED CHROME CYLINDER ASSY INSTALLED ON ENGINE C/W PISTON AND RINGS.								
8530		DHAV	PWA			CYLINDER	SEPARATED	102	3/10/93
		DHC2MK1	SB3			AR1891	NR 2		CA930322103
	(CAN) NR 2 CYLINDER SEPARATED AT THE HEAD BETWEEN NR 3 AND NR 4 COOLING FINS BELOW THE SPARK PLUG HOLE.								
8530		DHAV	PWA			HOLDDOWN STUD	BROKEN	565	5/15/93
		DHC2MK1	R985*			1281P4	NR 5 CYLINDER		CA930608109
	(CAN) NR 5 CYLINDER HOLD DOWN STUDS BROKEN ALLOWING CYLINDER TO LIFT OFF ENGINE CASE. ENGINE REPLACED.								
7250		DHAV	PWA			LP TURBINE DISK	FAILED	9143	5/7/93
		DHC3	PW120A			3036212	ENGINE		CA930519701
	(CAN) DURING CLIMB THROUGH 8,800 FEET, A SHUDDER WAS FELT AND A BANG HEARD. TORQUE DROPPED TO ZERO AND ITT INCREASED TO 836 DEGREES CELSIUS. POWER WAS REDUCED AND AFTER PILOT INDUCED SHUTDOWN, THE FIRE WARNING ILLUMINATED AND ONE FIRE BOTTLE WAS DISCHARGED. SINGLE ENGINE LANDING CARRIED OUT. GROUND INSP REVEALED TURBOMACHINERY CHIP DETECTOR FLAG AND FERROUS METAL PRESENT. EVIDENCE OF ENGINE EXTERNAL FIRE AT SIX O'CLOCK IN TURBINE CASE. ALL 6/7 BEARING OIL TRANSFER TUBES SHEARED AND OIL WAS EVIDENT. PARTIAL STRIP REVEALED LOW PRESS TURBINE DISK FIRETREE AND TWO ADJACENT BLADES RELEASED. THE DEBRIS FROM THE RESULTING FAILURE WAS CONTAINED. ENG SENT TO P&W FOR REPAIR AND OVERHAUL.								
8530		DHAV	PWA			CYLINDER	CRACKED	44	5/21/93
		DHC3	R134059				NR 3 EXH VALVE		CA930611417
	(CAN) DURING DESCENT, ENGINE BEGAN TO RUN ROUGH AND SMOKE WAS EMITTED FROM ENGINE. ENGINE MAINTAINED SUFFICIENT POWER TO LAND. INSPECTION REVEALED NR 3 CYLINDER EXHAUST VALVE FAILED AND CAUSED CYLINDER HEAD TO SPLIT. INTAKE VALVE ALSO FAILED PREVENTING TOTAL ENGINE FAILURE. CYLINDER REPLACED AND AIRCRAFT RETURNED TO SERVICE.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8530		DHAV	PWA			PLUG	DESTROYED		4/16/93
		DHC3	R134059			15320	LINKROD PIN		CA930518511
	(CAN) DURING 100 HR INSPECTION. ENGINE SUMPS AND THE OIL PRESSURE FILTER WERE CHECKED. A TABLESPOON FULL OF ALUMINUM SHAVINGS FOUND IN THE SCREEN AND MANY PIECES OF ALUM ALLOY FOUND IN THE ENGINE OIL SUMP (REAR). AERO EQUIP WAS CONTACTED. THEY ADVISED THE DESTROYED PART APPEARED TO BE AN ALUM PLUG P/N 15320 LOCATED AT LINKROD PIN. IT FELL OFF DUE TO VIBRATION, AS SOMETIMES HAPPENS ACCORDING TO THE MM. CONTINUED OPERATION IS RECOMMENDED IF OIL PRESSURE IS GOOD. THE OIL SCREEN WAS CHECKED AFTER GROUND RUN. NO MORE METAL FOUND. ENGINE RETURNED TO SERVICE.								
7322		DHAV	PWA			FUEL CONTRL UNIT	FAILED	10373	5/27/93
		DHC6300	PT6A27			25244442	NR 2 ENGINE	6650	CA930611406
	(CAN) AFTER TAKEOFF DURING AIRCRAFT CLIMB, NR 2 ENGINE POWER INCREASED TO 51 PSI TORQUE WITHOUT PILOT INPUT. WF, T5, AND NG ALSO INCREASED. FLIGHT WAS TERMINATED AND AIRCRAFT LANDED WITHOUT INCIDENT. FUEL CONTROL UNIT WAS FOUND DEFECTIVE.								
8520		GRUMAV	WRIGHT		WRIGHT	ENGINE	MAKING METAL		5/26/93
		TBM3AIRTRD	R260020				NR 3 CYL		CA930609602
	(CAN) NR 3 CYLINDER WAS BEING REMOVED TO RECTIFY A SNAG, THERE WAS DIFFICULTY IN REMOVING THE CYLINDER FROM THE ENGINE BECAUSE THE CYLINDER SKIRT WAS DAMAGED DUE TO A PIECE OF BRASS OR BRONZE MATERIAL COMING IN CONTACT WITH THE SKIRT. FURTHER INSPECTION REVEALED SEVERAL CYLINDER SKIRTS WERE DAMAGED AND TWO PIECES OF METAL APPROXIMATELY 5 INCHES LONG AND .3750 INCH WIDE WERE FOUND IN THE REAR CYLINDER BANK CRANKCASE. THE MATERIAL HAS NOT BEEN IDENTIFIED.								
8530		GRUMAV	WRIGHT		WRIGHT	EXHAUST VALVE	LEAKING	489	5/2/93
		TBM3EAIRTRD	R260020				NR 3 CYLINDER		CA930518601
	(CAN) ENGINE EXPERIENCED ROUGH RUNNING AND OCCASIONAL LOSS OF BOOST, BACKFIRING AND MOMENTARY STOPPAGE DURING OPERATION. UPON INSPECTION, NR 3 CYLINDER WAS FOUND TO HAVE LOW COMPRESSION DUE TO EXHAUST VALVE LEAKAGE. THE CYLINDER WAS CHANGED AND AIRCRAFT WAS TEST FLOWN. THERE WAS NO FURTHER EVIDENCE OF ROUGH RUNNING, BUT THERE WAS LOSS OF BOOST AT SEVERAL POWER SETTINGS. IT IS SUSPECTED THAT THERE IS LOW BLOWER CLUTCH SLIPPAGE. THE ENGINE IS BEING CHANGED DUE TO HIGH TIME ON ENGINE AND ECONOMICAL CONSIDERATIONS.								
8520		MOONEY	LYC			CONNECTING ROD	BROKEN	1500	5/3/93
		M20C	O360A1D			7452	NR 4 CYL		CA930608301
	(CAN) AT 4,000 ASL, ENGINE VIBRATED VIOLENTLY FOR 2-3 SECONDS THEN STOPPED. EXTENSIVE INTERNAL DAMAGE CAUSED BY NR 4 CONNECTING ROD FAILURE. CONECTING ROD SHOWS SIGNS OF PRE-EXISTING CRACK. HISTORY OF PROP STRIKE IN 1989. CRANKSHAFT FLANGE BENT.								
7414		PIPER	LYC		BENDIX	DISTRIBUTOR GEAR	BROKEN	680	5/28/93
		PA28180	O360A2A		105136029	1357584	RT MAG		CA930609212
	(CAN) ON ANNUAL INSPECTION, RT MAGNETO DISTRIBUTOR GEAR HAD ONE TOOTH BROKEN - MISSING.								
7310		PIPER	LYC			FUEL INJECT LINE	FRACTURED		5/12/93
		PA31310	TIO540A2C			LW120980100	NR 1 CYLINDER		CA930521109
	(CAN) DURING CLIMB-OUT, THE CREW NOTICED A SLIGHT POWER LOSS WITH ROUGH RUNNING ON THE NR 1 ENGINE. ALL COCKPIT INDICATION SHOWED NORMAL. ENGINE OPERATION AND MAGNETO ISOLATION DID NOT IMPROVE THE PROBLEM. GROUND INSPECTION REVEALED THE FUEL INJECTOR LINE ON THE NR 1 CYLINDER WAS FRACTURED. THE FUEL INJECTOR LINE WAS REPLACED ND THE AIRCRAFT RETURNED TO SERVICE.								
8520		PIPER	LYC		SUPAIRPART	BEARING	FAILED	211	5/20/93
		PA31310	TIO540A2C			SL7439	NR 3 CYL ROD		CA930602101
	(CAN) DURING FLIGHT, THE NR 2 ENGINE BEGAN TO RUN ROUGH AND THEN THE ENGINE FEATHERED. THE CREW SECURED THE ENGINE AND THE FLIGHT WAS COMPLETED. ON ENGINE DISASSEMBLY, THE NR 3 CYLINDER CONNECTING ROD WAS FOUND THROWN AND THE NR 3 CRANKSHAFT JOURNAL WAS BROKEN. THE ROD BEARING HAD DISINTEGRATED. ENGINE SHOWED SIGNS OF OPERATING WITH A FAILED NR 3 ROD BEARING FOR SOME TIME.								

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
8520		PIPER	LYC			CRANKCASE	DAMAGED	2893	3/26/93
		PA31350	TIO540J2BD			LW15448	IDLER SHAFT BOSS		CA930518107
	(CAN) ON APPROACH, CREW REDUCED PWR AND NR 2 ENG FEATHERED. CREW SECURED ENG AND A/C LANDED. PROP WAS UNFEATHERED ON GROUND AND ENG RAN NORMALLY EXCEPT FOR COMPLETE LOSS OF PROP CONTROL. ASSUMED IDLER SHAFT HAD BROKEN. ENG REPLACED. ON ENG DISASSEMBLY, IDLER SHAFT FOUND INTACT. REAR BOSS ON CRANKCASE ENLARGED AND HAD REMNANTS OF BRONZE BUSHING IN THE BOSS. IT APPEARS THAT DURING OVERHAUL THIS REAR BOSS WAS REPAIRED BY BORING HOLE OVERSIZE AND RETURNING IT TO STANDARD SIZE WITH THIS BRONZE BUSHING. SHAFT IN THIS SETTING IS SET SCREWED IN PLACE AND DOES NOT ROTATE. SHAFT PROPERLY SET SCREWED AND DID NOT ROTATE. THE ONLY CAUSE FOR DETERIORATION OF BUSHING WAS FRETTING CAUSING FAILURE OF PROP.								
7322		PIPER	PWA		BENDIX	FUEL CONTROL	STICKING	1088	5/25/93
		PA31T	PT6A28		25244405	2524445	GOV FLYWEIGHTS		CA930609202
	(CAN) LEFT ENGINE UNABLE TO IDLE BELOW 61 PERCENT NG. ALL LINKAGE AND RIGGING OK. FCU REMOVED FOR REPAIRS. SHOP REPORTS GOVERNOR FLYWEIGHTS STICKING DUE TO WORN BUSHING AND BUILD-UP OF FOREIGN MATTER.								
7414		PIPER	LYC		BENDIX	TIMING GEAR	BROKEN	90	5/7/93
		PA32RT300	IO540K1G5		1038256013	168216	ENG RT MAG		CA930527206
	(CAN) BEFORE FLIGHT ON RUNUP, RT MAGNETO FAILED. 3 TEETH FAILED ON TIMING GEAR AND MULTI TEETH STRIPPED ON RT AND LT GEARS. MAGNETO HAD BEEN OVERHAULED 90 HRS. PREVIOUSLY.								
8530		SCWZER			PWA	CYLINDER	SEPARATED	739	4/13/93
		G164A				399354	NR 3 CYLINDER		CA930518110
	(CAN) DURING SPRAYING OPERATING OIL WAS NOTED ON THE RIGHT HAND SIDE OF THE AIRCRAFT. SUBSEQUENT INSPECTION REVEALED THE HEAD OF NR 3 CYLINDER HAD SEPARATED FROM THE BARREL.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - ENGINES)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6122		BEECH		HARTZL	WOODWARD	VALVE	FAILED		5/10/93
		D95A		HC92WK2	HE7213	HE7213	NR 1 PROP GOV		CA930518301

(CAN) DURING A TRAINING FLIGHT, A FULL FEATHER SHUTDOWN WAS PERFORMED ON NR 1 ENGINE. WHEN A RESTART WAS ATTEMPTED THE PROP CAME OUT OF FEATHER BUT THE ENGINE FAILED TO START. AN INSPECTION OF THE UNFEATHERING SYSTEM REVEALED THE UNFEATHERING VALVE WAS LEAKING INTERNALLY. THE UNFEATHERING VALVE WAS REPLACED. THE AIRCRAFT WAS TEST FLOWN SERVICEABLE AND RETURNED TO SERVICE.

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - COMPONENTS)

INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS

ATA OPER	REG. NO SERIAL NO	ACFT MAKE ACFT MODEL	ENG MAKE ENG MDL	PROP MAKE PROP MDL	COMP MFG COMP MDL	PART NAME PART NUMBER	PART COND PART LOC.	TT TSO	DIFF. DATE OPER CONT NO
6111		CESSNA		MCAULY		BLADE	DAMAGED	5070	11/12/97
		150M		1A102OCM			LE & FACE	3053	CA971118006
	(CAN) PROPELLER RECEIVED FOR CORROSION INSPECTION. STONE DAMAGE WAS FOUND ON THE LEADING EDGE AND FACE OF THE PROPELLER BLADE.								
6110		DHAV	PWA	HARTZL		GUIDE ROD	BENT	4759	11/14/97
		DHC6300	PT6A27	HCB3TN3		B3475A2	PROP ASSY	743	CA971118005
	(CAN) PROPELLER RECEIVED FOR CORROSION INSPECTION. ROD FOUND BENT. ROD REPLACED.								
6111		MOONEY		MCAULY		BLADE	DAMAGED	1307	10/30/97
		M20J		B2D34C214		G9DHB16E	LE & FACE	631	CA971112003
	(CAN) PROPELLER RECEIVED FOR CORROSION INSPECTION. STONE DAMAGE FOUND ON THE LEADING EDGES AND THE FACE OF THE BLADES. THE BLADES WERE REPAIRED AND ANODIZED.								

(End of INTERNATIONAL SERVICE DIFFICULTY REPORT SUMMARY - PROPELLERS)

U.S. Department
of Transportation
Federal Aviation Administration

SERVICE DIFFICULTY REPORT SUMMARY

GENERAL AVIATION - INDEX

The following information provides a tally of the Service Difficulty Reports (SDR's) contained in this weeks issue of the General Aviation SDR Summary. The totals represent only a summation of the SDR's that were submitted to the FAA, Aviation Data Systems Branch, AFS-620, and processed in time for inclusion in the Summary. The first table is a tally of the number of SDR's submitted through the indicated Flight Standards District Office (FSDO). The second table sorts the SDR's by the aircraft or equipment make and model. The heading at the top of each table provides a two digit Joint Aircraft System/Component (JASC) code grouping (e.g., JASC codes 1100 thru 1800 are represented by the heading labeled 11-18) which categorizes in general, the problem areas for each reported discrepancy.

The Flight Standards Service Difficulty Program objective is to achieve prompt and appropriate correction of conditions adversely affecting continued airworthiness of aeronautical products. This is accomplished by the collection of Service Difficulty and Malfunction or Defect Reports. SDR's are consolidation and collation into common data base where they are analyzed for trends, problems, and alert information. This information is then disseminated to the appropriate segments of the aviation community and to other FAA offices.

The number of SDR's submitted is not an indicator of the mechanical reliability or fitness of an air carrier's aircraft fleet and should not be used as such. The air carriers certificate holding office has the primary responsibility for planning, programming evaluations, and assessing the performance of operators. Questions regarding an air carrier's fleet performance should be directed to the appropriate Flight Standards District Office, Certificate Management Office, or Certificate Management Unit.

GENERAL AVIATION SUMMARY INDEX BY DISTRICT OFFICE

DISTRICT OFFICE	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
	11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
AL 01	0	1	0	0	0	0	0	0	1
AL 05	0	0	0	0	0	0	1	0	1
CA	0	23	15	0	18	15	25	18	114
CE 01	0	0	0	0	0	0	1	1	2
EA 05	0	0	1	0	0	0	0	0	1
EA 09	0	0	0	0	0	0	0	1	1
EA 21	0	1	0	0	0	0	0	0	1
EA 25	0	0	1	0	0	0	3	0	4
GL 25	0	1	0	0	0	0	0	0	1
NE 05	0	0	0	0	1	0	0	0	1
SO 15	0	0	12	0	0	0	0	0	12
SW 03	0	26	21	0	2	10	14	0	73
SW 05	0	0	1	0	0	0	0	0	1
SW 99	0	0	0	0	2	0	0	1	3
TOTALS	**0**	**52**	**51**	**0**	**23**	**25**	**44**	**21**	**216**

(End of GENERAL AVIATION SUMMARY INDEX by DISTRICT OFFICE Report)

GENERAL AVIATION SUMMARY INDEX by MANUFACTURER MAKE and MODEL

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER								
		11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
AIRTRC	AT301	0	0	0	0	0	0	1	0	1
BBAVIA	7ECA	0	1	0	0	0	0	0	0	1
BEECH	200BEECH	0	0	1	0	1	0	0	0	2
BEECH	58	0	1	0	0	0	0	0	0	1
BEECH	58TC	0	0	1	0	0	0	0	0	1
BEECH	76	0	0	1	0	0	0	0	0	1
BEECH	99	0	0	1	0	0	0	0	0	1
BEECH	99	0	1	0	0	0	0	1	0	2
BEECH	A100	0	1	0	0	0	0	2	0	3
BEECH	A23	0	0	0	0	1	0	0	0	1
BEECH	A36	0	0	0	0	0	0	1	0	1
BEECH	A65	0	0	1	0	0	0	0	0	1
BEECH	B99	0	1	1	0	0	0	0	0	2
BEECH	B99	0	0	0	0	0	0	1	0	1
BEECH	C90A	0	0	0	0	1	0	3	0	4
BEECH	C99	0	0	1	0	0	0	0	0	1
BEECH	D95A	0	0	0	0	1	1	0	0	2
BEECH	H35	0	0	0	0	1	0	0	0	1
BELL	205A1	0	0	0	0	0	1	0	0	1
BELL	205A1	0	0	0	0	0	1	0	0	1
BELL	206B	0	1	0	0	1	1	1	0	4
BELL	206B	0	0	0	0	0	1	0	0	1
BELL	206B3	0	0	1	0	0	1	0	0	2
BELL	206L	0	0	0	0	0	2	0	0	2
BELL	206L1	0	0	0	0	0	0	1	0	1
BELL	206L3	0	0	1	0	0	0	0	0	1
BELL	212	0	2	0	0	0	0	2	0	4

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
BELL	214ST	0	5	6	0	0	4	2	0	17
BELL	412	0	9	9	0	2	2	7	0	29
BNORM	BN2A21	0	0	0	0	0	0	1	0	1
BOEING	1072	0	0	0	0	0	0	1	0	1
BOLKMS	BK117A3	0	1	0	0	0	0	0	0	1
BOLKMS	BK117B1	0	1	0	0	1	0	0	0	2
BOLKMS	BO105S	0	3	2	0	0	1	3	0	9
CESSNA	150	0	0	0	0	1	0	0	0	1
CESSNA	150B	0	0	0	0	1	0	0	0	1
CESSNA	150H	0	0	0	0	0	0	0	1	1
CESSNA	150L	0	1	0	0	0	0	0	0	1
CESSNA	150M	0	0	0	0	0	1	0	0	1
CESSNA	152	0	1	0	0	0	0	0	0	1
CESSNA	172M	0	0	0	0	0	0	0	1	1
CESSNA	172M	0	1	0	0	0	0	0	0	1
CESSNA	172N	0	0	0	0	0	0	1	1	2
CESSNA	172RG	0	0	12	0	0	0	0	0	12
CESSNA	177RG	0	0	0	0	0	0	1	0	1
CESSNA	180J	0	0	0	0	0	0	1	0	1
CESSNA	207	0	1	0	0	0	0	0	0	1
CESSNA	402C	0	0	1	0	0	0	0	0	1
CESSNA	525	0	0	1	0	0	0	0	0	1
CESSNA	A185E	0	0	0	0	1	0	0	0	1
CESSNA	A185F	0	2	0	0	0	0	0	0	2
CESSNA	A185F	0	0	0	0	0	0	1	1	2
CESSNA	S550	0	0	1	0	0	0	0	0	1
CESSNA	T207A	0	0	0	0	1	0	0	0	1

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
CESSNA	TU206G	0	1	0	0	0	0	0	0	1
CESSNA	U206	0	0	0	0	0	0	0	1	1
CESSNA	U206	0	0	0	0	0	0	1	0	1
DHAV	DHC2MK1	0	0	0	0	3	0	0	2	5
DHAV	DHC2MK1	0	0	0	0	0	0	0	2	2
DHAV	DHC3	0	0	1	0	0	0	0	2	3
DHAV	DHC3	0	0	0	0	0	0	1	0	1
DHAV	DHC6100	0	1	0	0	0	0	1	0	2
DHAV	DHC6200	0	1	0	0	0	0	0	0	1
DHAV	DHC6300	0	0	0	0	1	1	1	0	3
ENSTRM	F28F	0	0	0	0	0	1	0	0	1
GRUMAV	TBM3AIRTRD	0	0	0	0	0	0	0	1	1
GRUMAV	TBM3EAIRTRD	0	0	0	0	0	0	0	1	1
GULSTM	AA5A	0	1	0	0	0	0	0	0	1
HUGHES	269C	0	0	0	0	0	3	0	0	3
HUGHES	369E	0	0	0	0	0	1	0	0	1
LUSCOM	8A	0	0	0	0	1	0	0	0	1
MOONEY	M20C	0	0	0	0	0	0	0	1	1
MOONEY	M20J	0	0	1	0	0	1	0	0	2
MTSBSI	MU2B35	0	0	1	0	0	0	0	0	1
MTSBSI	MU2B36A	0	1	0	0	0	0	0	0	1
PARTEN	P68C	0	1	0	0	0	0	0	0	1
PIPER	PA12	0	0	0	0	1	0	0	0	1
PIPER	PA23250	0	1	0	0	0	0	1	0	2
PIPER	PA24250	0	1	0	0	1	0	0	1	3
PIPER	PA28180	0	0	0	0	0	0	1	0	1
PIPER	PA31	0	0	0	0	1	0	1	1	3

AIRCRAFT MAKE	AIRCRAFT MODEL	SDR TOTALS BY FAA ATA SYSTEM CHAPTER 11-18	21-29	30-38	45-49	51-57	61-67	71-79	80-85	TOTAL
PIPER	PA31310	0	0	0	0	0	0	1	1	2
PIPER	PA31350	0	1	2	0	1	0	1	2	7
PIPER	PA31350	0	2	0	0	0	0	0	0	2
PIPER	PA31T	0	0	0	0	0	0	1	0	1
PIPER	PA32301	0	0	0	0	0	0	1	0	1
PIPER	PA32RT300	0	0	0	0	0	0	1	0	1
PIPER	PA34200T	0	0	1	0	0	0	0	0	1
PIPER	PA34220T	0	0	0	0	0	0	0	1	1
PIPER	PA421000	0	0	1	0	0	0	0	0	1
PIPER	PA60600	0	0	1	0	0	0	0	0	1
RHNFLU	EXTRA300	0	0	0	0	1	0	0	0	1
SCWZER	G164A	0	0	0	0	0	0	0	1	1
SKRSKY	S61N	0	1	0	0	0	0	0	0	1
SKRSKY	S76A	0	5	2	0	0	2	1	0	10
SZD	SZD48	0	1	0	0	0	0	0	0	1
ZLIN	Z242L	0	1	0	0	0	0	0	0	1
TOTALS		**0**	**52**	**51**	**0**	**23**	**25**	**44**	**21**	**216**

(End of AIR CARRIER SUMMARY INDEX by OPERATOR Report)

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

PREFACE

The Joint Aircraft System/Component (JASC) Code Table is a modified version of the Air Transport Association of America (ATA), Specification 100 code. It was developed by the Federal Aviation Administration's (FAA), Aviation Data Systems Branch (AFS-620). Technical support was provided by the Galaxy Scientific Corporation, and various representatives of the air carrier and general aviation community.

Over the past four years, the JASC format of the ATA Spec 100 code has gained widespread industry acceptance. In a harmonized effort, the FAA's counterparts in Australia and Canada have adopted the JASC code with only a few exceptions. Some Canadian aircraft manufacturers have also recently adopted this new stardard.

This code table is constructed by using the new JASC four (4) digit code, along with an abbreviated code title. The abbreviated titles have been modified in some cases to clarify the intended use of the accompanying code. This table can be used as a quick reference chart, to assist in the coding and review of aircraft structures or systems data (i.e., Service Difficulty Report (SDR), Accident/Incident Report).

The current coding scheme used in the JASC code was introduced in May 1991, for the technical classification of SDR's. Its predecessor, the FAA aircraft system/component code, was a similar but more complex eight-digit code which was developed over 25 years ago. It was constructed around the computer technology of that period. It consisted of a four digit numerical code plus a four alpha character code to make data retrieval possible. Since that time, computer technology has advanced many fold. Reducing the code from eight to four characters simplifies coding, and in some cases, makes JASC coding match the ATA Specification 100 first three digits, which are used to identify aircraft systems. The ATA code does not reference the fourth digit, so it is free to be used for identifying components.

The JASC code aircraft structural section has increased due to problems inherent with aging aircraft. As an example, FAA code 5301 SXBD was expanded to 20 items due to the high rate of reporting in this area (8021 structural reports were received in 1989). In some instances, there was very little reporting and codes were combined into other systems if the safety impact was not significant. The overall reduction in codes has been from 568 FAA codes to 488 JASC codes, with the significant increase being in the structural area as stated earlier.

The JASC code divides the engine section into two major code groups to separate the turbine and reciprocating engines. The codes for the turbine engines are in JASC Chapter 72, Turbine/Turboprop Engine. The codes for the reciprocating engines are now exclusively found in JASC Chapter 85, Reciprocating Engine.

The other major deviation from ATA Spec 100 is in ATA section 2730, specifically involves the stall warning system. Early technology (primarily on smaller aircraft) directly linked the sensing of flight attitude to one of the components which furnished the means of manually controlling the flight attitude characteristics (elevator). Today, most large transport category aircraft utilize electronic units to sense the change in the environmental condition called stall, and use the data to influence navigation. ATA section 3410, Flight Environment Data, includes high speed warning in its code definition. Stall warning (low speed) is the reciprocal term of high speed warning, so its filing under the same code appears more logical. Thus, with the JASC code it was decided to move the stall warning system to Chapter 34 under the separate code JASC code 3418, Stall Warning System.

The FAA is continuing to pursue worldwide involvement from operators and manufacturers in addressing the need for international standardization of aircraft system/component codes. The ultimate goal is to develop a universal aircraft/component numbering standard which can be used in the manufacturer's maintenance manual, wiring diagram manual, system manuals and illustrated parts catalog. This harmonized standard must be a usable standard for the aircraft manufacturers, air carrier operators and the general aviation community.

We welcome comments and feedback regarding the possible forming of working groups to achieve this long range consideration of possibly harmonizing the ATA Specification 100 code and the JASC code. Comments may be directed to the FAA, Aviation Data Sytem Branch, AFS-620, P.O. Box 25082, Oklahoma City, OK 73125.

JOINT AIRCRAFT SYSTEM/COMPONENT CODE TABLE

JASC/ TITLE

11 PLACARDS AND MARKINGS

1100 PLACARDS AND MARKINGS

12 SERVICING

1210 FUEL SERVICING
1220 OIL SERVICING
1230 HYDRAULIC FLUID SERVICING
1240 COOLANT SERVICING

18 HELICOPTER VIBRATION

1800 HELICOPTER VIB/NOISE ANALYSIS
1810 HELICOPTER VIBRATION ANALYSIS
1820 HELICOPTER NOISE ANALYSIS

21 AIR CONDITIONING

2100 AIR CONDITIONING SYSTEM
2110 CABIN COMPRESSOR SYSTEM
2120 AIR DISTRIBUTION SYSTEM
2121 AIR DISTRIBUTION FAN
2130 CABIN PRESSURE CONTROL SYSTEM
2131 CABIN PRESSURE CONTROLLER
2132 CABIN PRESSURE INDICATOR
2133 PRESSURE REGUL/OUTFLOW VALVE
2134 CABIN PRESSURE SENSOR
2140 HEATING SYSTEM
2150 CABIN COOLING SYSTEM
2160 CABIN TEMPERATURE CONTROL SYSTEM
2161 CABIN TEMPERATURE CONTROLLER
2162 CABIN TEMPERATURE INDICATOR
2163 CABIN TEMPERATURE SENSOR
2170 HUMIDITY CONTROL SYSTEM

22 AUTO FLIGHT

2200 AUTO FLIGHT SYSTEM
2210 AUTOPILOT SYSTEM
2211 AUTOPILOT COMPUTER
2212 ALTITUDE CONTROLLER
2213 FLIGHT CONTROLLER
2214 AUTOPILOT TRIM INDICATOR
2215 AUTOPILOT MAIN SERVO
2216 AUTOPILOT TRIM SERVO
2220 SPEED-ATTITUDE CORRECT. SYSTEM
2230 AUTO THROTTLE SYSTEM
2250 AERODYNAMIC LOAD ALLEVIATING

23 COMMUNICATIONS

2300 COMMUNICATIONS SYSTEM
2310 HF COMMUNICATION SYSTEM
2311 UHF COMMUNICATION SYSTEM
2312 VHF COMMUNICATION SYSTEM
2320 DATA TRANSMISSION AUTO CALL
2330 ENTERTAINMENT SYSTEM
2340 INTERPHONE & PA SYSTEM
2350 AUDIO INTEGRATING SYSTEM
2360 STATIC DISCHARGE SYSTEM
2370 AUDIO/VIDEO MONITORING

24 ELECTRICAL POWER

2400 ELECTRICAL POWER SYSTEM
2410 ALTERNATOR-GENERATOR DRIVE
2420 AC GENERATION SYSTEM
2421 AC GENERATOR-ALTERNATOR
2422 AC INVERTER
2423 PHASE ADAPTER

24 ELECTRICAL POWER CONT'D

2424 AC REGULATOR
2425 AC INDICATING SYSTEM
2430 DC GENERATING SYSTEM
2431 BATTERY OVERHEAT WARN. SYSTEM
2432 BATTERY/CHARGER SYSTEM
2433 DC RECTIFIER-CONVERTER
2434 DC GENERATOR-ALTERNATOR
2435 STARTER-GENERATOR
2436 DC REGULATOR
2437 DC INDICATING SYSTEM
2440 EXTERNAL POWER SYSTEM
2450 AC POWER DISTRIBUTION SYSTEM
2460 DC POWER/DISTRIBUTION SYSTEM

25 EQUIPMENT/FURNISHINGS

2500 CABIN EQUIPMENT/FURNISHINGS
2510 FLIGHT COMPARTMENT EQUIPMENT
2520 PASSENGER COMPARTMENT EQUIPMENT
2530 BUFFET/GALLEYS
2540 LAVATORIES
2550 CARGO COMPARTMENTS
2551 AGRICULTURAL SPRAY SYSTEM
2560 EMERGENCY EQUIPMENT
2561 LIFE JACKET
2562 EMERGENCY LOCATOR BEACON
2563 PARACHUTE
2564 LIFE RAFT
2565 ESCAPE SLIDE
2570 ACCESSORY COMPARTMENT
2571 BATTERY BOX STRUCTURE
2572 ELECTRONIC SHELF SECTION

26 FIRE PROTECTION

2600 FIRE PROTECTION SYSTEM
2610 DETECTION SYSTEM
2611 SMOKE DETECTION
2612 FIRE DETECTION
2613 OVERHEAT DETECTION
2620 EXTINGUISHING SYSTEM
2621 FIRE BOTTLE, FIXED
2622 FIRE BOTTLE, PORTABLE

27 FLIGHT CONTROLS

2700 FLIGHT CONTROL SYSTEM
2701 CONTROL COLUMN SECTION
2710 AILERON CONTROL SYSTEM
2711 AILERON TAB CONTROL SYSTEM
2720 RUDDER CONTROL SYSTEM
2721 RUDDER TAB CONTROL SYSTEM
2722 RUDDER ACTUATOR
2730 ELEVATOR CONTROL SYSTEM
2731 ELEVATOR TAB CONTROL SYSTEM
2740 STABILIZER CONTROL SYSTEM
2741 STABILIZER POSITION INDICATING
2742 STABILIZER ACTUATOR
2750 TE FLAP CONTROL SYSTEM
2751 TE FLAP POSITION IND. SYSTEM
2752 TE FLAP ACTUATOR
2760 DRAG CONTROL SYSTEM
2761 DRAG CONTROL ACTUATOR
2770 GUST LOCK/DAMPER SYSTEM
2780 LE FLAP CONTROL SYSTEM
2781 LE FLAP POSITION IND. SYSTEM
2782 LE FLAP ACTUATOR

28 FUEL

2800 AIRCRAFT FUEL SYSTEM
2810 FUEL STORAGE
2820 ACFT FUEL DISTRIB. SYSTEM
2821 ACFT FUEL FILTER/STRAINER
2822 FUEL BOOST PUMP
2823 FUEL SELECTOR/SHUTOFF VALVE
2824 FUEL TRANSFER VALVE
2830 FUEL DUMP SYSTEM
2840 ACFT FUEL INDICATING
2841 FUEL QUANTITY INDICATOR
2842 FUEL QUANTITY SENSOR
2843 FUEL TEMPERATURE INDICATING
2844 FUEL PRESSURE INDICATOR

29 HYDRAULIC POWER

2900 HYDRAULIC POWER SYSTEM
2910 HYDRAULIC, MAIN SYSTEM
2911 HYDRAULIC POWER-ACCUMULATOR-MAIN
2912 HYDRAULIC FILTER-MAIN SYSTEM
2913 HYDRAULIC PUMP. ELECT-ENG.-MAIN
2914 HYDRAULIC HANDPUMP-MAIN
2915 HYDRAULIC PRESSURE RELIEF VLV-MAIN
2916 HYDRAULIC RESERVOIR-MAIN
2917 HYDRAULIC PRESSURE REGULATOR-MAIN
2920 HYDRAULIC, AUXILIARY SYSTEM
2921 HYDRAULIC ACCUMULATOR-AUXILIARY
2922 HYDRAULIC FILTER-AUXILIARY
2923 HYDRAULIC PUMP-AUXILIARY
2925 HYDRAULIC PRESSURE RELIEF-AUXILIARY
2926 HYDRAULIC RESERVOIR-AUXILIARY
2927 HYDRAULIC PRESSURE REGULATOR-AUX.
2930 HYDRAULIC SYSTEM INDICATING
2931 HYDRAULIC PRESSURE INDICATOR
2932 HYDRAULIC PRESSURE SENSOR
2933 HYDRAULIC QUANTITY INDICATOR
2934 HYDRAULIC QUANTITY SENSOR

30 ICE AND RAIN PROTECTION

3000 ICE/RAIN PROTECTION SYSTEM
3010 AIRFOIL ANTI/DE-ICE SYSTEM
3020 AIR INTAKE ANTI/DE-ICE SYSTEM
3030 PITOT/STATIC ANTI-ICE SYSTEM
3040 WINDSHIELD/DOOR RAIN/ICE REMOVAL
3050 ANTENNA/RADOME ANTI-ICE/DE-ICE SYSTEM
3060 PROP/ROTOR ANTI-ICE/DE-ICE SYSTEM
3070 WATER LINE ANTI-ICE SYSTEM
3080 ICE DETECTION

31 INSTRUMENTS

3100 INDICATING/RECORDING SYSTEM
3110 INSTRUMENT PANEL
3120 INDEPENDENT INSTRUMENTS (CLOCK, ETC.)
3130 DATA RECORDERS (FLT/MAINT)
3140 CENTRAL COMPUTERS (EICAS)
3150 CENTRAL WARNING
3160 CENTRAL DISPLAY
3170 AUTOMATIC DATA

32 LANDING GEAR

3200 LANDING GEAR SYSTEM
3201 LANDING GEAR/WHEEL FAIRING
3210 MAIN LANDING GEAR
3211 MAIN LANDING GEAR ATTACH SECTION
3212 EMERGENCY FLOTATION SECTION
3213 MAIN LANDING GEAR STRUT/AXLE/TRUCK
3220 NOSE/TAIL LANDING GEAR
3221 NOSE/TAIL LANDING GEAR ATTACH SECTION
3222 NOSE/TAIL LANDING GEAR STRUT/AXLE
3230 LANDING GEAR RETRACT/EXT. SYSTEM
3231 LANDING GEAR DOOR RETRACT SECTION
3232 LANDING GEAR DOOR ACTUATOR
3233 LANDING GEAR ACTUATOR
3234 LANDING GEAR SELECTOR
3240 LANDING GEAR BRAKE SYSTEM
3241 BRAKE ANTI-SKID SECTION
3242 BRAKE
3243 MASTER CYL/BRAKE VALVE
3244 TIRE
3245 TIRE TUBE
3246 WHEEL/SKI/FLOAT
3250 LANDING GEAR STEERING SYSTEM
3251 STEERING UNIT
3252 SHIMMY DAMPER
3260 LANDING GEAR POSITION & WARNING
3270 AUXILIARY GEAR (TAIL SKID)

33 LIGHTS

3300 LIGHTING SYSTEM
3310 FLIGHT COMPARTMENT LIGHTING
3320 PASSENGER COMPARTMENT LIGHTING
3330 CARGO COMPARTMENT LIGHTING
3340 EXTERIOR LIGHTING
3350 EMERGENCY LIGHTING

34 NAVIGATION

3400 NAVIGATION SYSTEM
3410 FLIGHT ENVIRONMENT DATA
3411 PITOT/STATIC SYSTEM
3412 OUTSIDE AIR TEMP. IND./SENSOR
3413 RATE OF CLIMB INDICATOR
3414 AIRSPEED/MACH INDICATING
3415 HIGH SPEED WARNING
3416 ALTIMETER, BAROMETRIC/ENCODER

34 NAVIGATION CONT'D

3417 AIR DATA COMPUTER
3418 STALL WARNING SYSTEM
3420 ATTITUDE AND DIRECTION DATA SYSTEM
3421 ATTITUDE GYRO & IND. SYSTEM
3422 DIRECTIONAL GYRO & IND. SYSTEM
3423 MAGNETIC COMPASS
3424 TURN & BANK/RATE OF TURN INDICATOR
3425 INTEGRATED FLT. DIRECTOR SYSTEM
3430 LANDING & TAXI AIDS
3431 LOCALIZER/VOR SYSTEM
3432 GLIDE SLOPE SYSTEM
3433 MICROWAVE LANDING SYSTEM
3434 MARKER BEACON SYSTEM
3435 HEADS UP DISPLAY SYSTEM
3436 WIND SHEAR DETECTION SYSTEM
3440 INDEPENDENT POS. DETERMINING SYSTEM
3441 INERTIAL GUIDANCE SYSTEM
3442 WEATHER RADAR SYSTEM
3443 DOPPLER SYSTEM
3444 GROUND PROXIMITY SYSTEM
3445 AIR COLLISION AVOIDANCE SYSTEM (TCAS)
3446 NON RADAR WEATHER SYSTEM
3450 DEPENDENT POSITION DETERMINING SYSTEM
3451 DME/TACAN SYSTEM
3452 ATC TRANSPONDER SYSTEM
3453 LORAN SYSTEM
3454 VOR SYSTEM
3455 ADF SYSTEM
3456 OMEGA NAVIGATION SYSTEM
3457 GLOBAL POSITIONING SYSTEM
3460 FLIGHT MANAGE. COMPUTING SYSTEM

35 OXYGEN

3500 OXYGEN SYSTEM
3510 CREW OXYGEN SYSTEM
3520 PASSENGER OXYGEN SYSTEM
3530 PORTABLE OXYGEN SYSTEM

36 PNEUMATIC

3600 PNEUMATIC SYSTEM
3610 PNEUMATIC DISTRIBUTION SYSTEM
3620 PNEUMATIC INDICATING SYSTEM

37 VACUUM

3700 VACUUM SYSTEM
3710 VACUUM DISTRIBUTION SYSTEM
3720 VACUUM INDICATING SYSTEM

38 WATER/WASTE

3800 WATER & WASTE SYSTEM
3810 POTABLE WATER SYSTEM
3820 WASH WATER SYSTEM
3830 WASTE DISPOSAL SYSTEM
3840 AIR SUPPLY (WATER PRESS. SYSTEM)

45 CENTRAL MAINT. SYSTEM

4500 CENTRAL MAINT. COMPUTER

49 AIRBORNE AUXILIARY POWER

4900 AIRBORNE APU SYSTEM
4910 APU COWLING/CONTAINMENT
4920 APU CORE ENGINE
4930 APU ENGINE FUEL & CONTROL
4940 APU START/IGNITION SYSTEM
4950 APU BLEED AIR SYSTEM
4960 APU CONTROLS
4970 APU INDICATING SYSTEM
4980 APU EXHAUST SYSTEM
4990 APU OIL SYSTEM

51 STANDARD PRACTICES/STRUCTURES

5100 STANDARD PRACTICES/STRUCTURES
5101 AIRCRAFT STRUCTURES
5102 BALLOON REPORTS

52 DOORS

5200 DOORS
5210 PASSENGER/CREW DOORS
5220 EMERGENCY EXIT
5230 CARGO/BAGGAGE DOORS
5240 SERVICE DOORS
5241 GALLEY DOORS
5242 E/E COMPARTMENT DOORS
5243 HYDRAULIC COMPARTMENT DOORS
5244 ACCESSORY COMPARTMENT DOORS
5245 AIR CONDITIONING COMPART. DOORS
5246 FLUID SERVICE DOORS
5247 APU DOORS
5248 TAIL CONE DOORS
5250 FIXED INNER DOORS
5260 ENTRANCE STAIRS
5270 DOOR WARNING SYSTEM
5280 LANDING GEAR DOORS

53 FUSELAGE

5300 FUSELAGE STRUCTURE (GENERAL)
5301 AERIAL TOW EQUIPMENT
5302 ROTORCRAFT TAIL BOOM
5310 FUSELAGE MAIN STRUCTURE
5311 FUSELAGE MAIN FRAME
5312 FUSELAGE MAIN BULKHEAD
5313 FUSELAGE MAIN LONGERON/STRINGER
5314 FUSELAGE MAIN KEEL
5315 FUSELAGE MAIN FLOOR BEAM
5320 FUSELAGE MISCELLANEOUS STRUCTURE
5321 FUSELAGE FLOOR PANEL
5322 FUSELAGE INTERNAL MOUNT STRUCTURE
5323 FUSELAGE INTERNAL STAIRS
5324 FUSELAGE FIXED PARTITIONS
5330 FUSELAGE MAIN PLATE/SKIN
5340 FUSELAGE MAIN ATTACH FITTINGS
5341 WING ATTACH FITTINGS (ON FUSELAGE)
5342 STABILIZER ATTACH FITTINGS
5343 LANDING GEAR ATTACH FITTINGS
5344 FUSELAGE DOOR HINGES
5345 FUSELAGE EQUIPMENT ATTACH FITTINGS
5346 POWERPLANT ATTACH FITTINGS
5347 SEAT/CARGO ATTACH FITTINGS
5350 FUSELAGE AERODYNAMIC FAIRINGS

54 NACELLES/PYLONS

5400 NACELLE/PYLON STRUCTURE
5410 MAIN FRAME (ON NACELLE/PYLON)
5411 FRAME/SPAR/RIB(NACELLE/PYLON)
5412 BULKHEAD/FIREWALL (NAC/PYLON)
5413 LONGERON/STRINGER (NAC/PYLON)
5414 PLATE SKIN (NAC/PYLONS)
5415 ATTACH FITTINGS (NAC/PYLON)

55 STABILIZERS

5500 EMPENNAGE STRUCTURE
5510 HORIZONTAL STABILIZER STRUCTURE
5511 HORIZONTAL STABILIZER SPAR/RIB
5512 HORIZONTAL STABILIZER PLATE/SKIN
5513 HORIZONTAL STABILIZER TAB STRUCTURE
5520 ELEVATOR STRUCTURE

55 STABILIZERS CONT'D

5521 ELEVATOR SPAR/RIB STRUCTURE
5522 ELEVATOR PLATES/SKIN STRUCTURE
5523 ELEVATOR TAB STRUCTURE
5530 VERTICAL STABILIZER STRUCTURE
5531 VERTICAL STABILIZER SPAR/RIB STRUCTURE
5532 VERTICAL STABILIZER PLATES/SKIN
5533 VENTRAL STRUCTURE (ON VERT. STAB)
5540 RUDDER STRUCTURE
5541 RUDDER SPAR/RIB STRUCTURE
5542 RUDDER PLATE/SKIN STRUCTURE
5543 RUDDER TAB STRUCTURE
5550 EMPENNAGE FLT. CONT. ATTACH FITTING
5551 HORIZONTAL STABILIZER ATTACH FITTING
5552 ELEVATOR/TAB ATTACH FITTINGS
5553 VERT. STAB. ATTACH FITTINGS
5554 RUDDER/TAB ATTACH FITTINGS

56 WINDOWS

5600 WINDOW/WINDSHIELD SYSTEM
5610 FLIGHT COMPARTMENT WINDOWS
5620 PASSENGER COMPARTMENT WINDOWS
5630 DOOR WINDOWS
5640 INSPECTION WINDOWS

57 WINGS

5700 WING STRUCTURE
5710 WING MAIN FRAME STRUCTURE
5711 WING SPAR STRUCTURE
5712 WING RIB STRUCTURE
5713 WING LONGERON/STRINGER
5714 WING CENTER BOX
5720 WING MISCELLANEOUS STRUCTURE
5730 WING PLATES/SKINS
5740 WING ATTACH FITTINGS
5741 WING, FUSELAGE ATTACH FITTINGS
5742 WING, NAC/PYLON ATTACH FITTINGS
5743 WING, LANDING GEAR ATTACH FITTINGS
5744 CONTROL SURFACE ATTACH FITTINGS
5750 WING CONTROL SURFACE STRUCTURE
5751 AILERON STRUCTURE
5752 AILERON TAB STRUCTURE
5753 TE FLAP STRUCTURE
5754 LEADING EDGE DEVICE STRUCTURE
5755 SPOILER STRUCTURE

61 PROPELLERS/PROPULSORS

6100 PROPELLER SYSTEM
6110 PROPELLER ASSEMBLY
6111 PROPELLER BLADE SECTION
6112 PROPELLER DE-ICE BOOT SECTION
6113 PROPELLER SPINNER SECTION
6114 PROPELLER HUB SECTION
6120 PROPELLER CONTROL SYSTEM
6121 PROPELLER SYNCHRONIZER SECTION
6122 PROPELLER GOVERNOR
6123 PROPELLER FEATHERING/REVERSING
6130 PROPELLER BRAKING
6140 PROPELLER INDICATING SYSTEM

62 MAIN ROTOR

6200 MAIN ROTOR SYSTEM
6210 MAIN ROTOR BLADES
6220 MAIN ROTOR HEAD
6230 MAIN ROTOR MAST/SWASHPLATE
6240 MAIN ROTOR INDICATING SYSTEM

63 MAIN ROTOR DRIVE

6300 MAIN ROTOR DRIVE SYSTEM
6310 ENGINE/TRANSMISSION COUPLING
6320 MAIN ROTOR GEARBOX
6321 MAIN ROTOR BRAKE
6322 ROTORCRAFT COOLING FAN SYSTEM
6330 MAIN ROTOR TRANSMISSION MOUNT
6340 ROTOR DRIVE INDICATING SYSTEM

64 TAIL ROTOR

6400 TAIL ROTOR SYSTEM
6410 TAIL ROTOR BLADE
6420 TAIL ROTOR HEAD
6440 TAIL ROTOR INDICATING SYSTEM

65 TAIL ROTOR DRIVE

6500 TAIL ROTOR DRIVE SYSTEM
6510 TAIL ROTOR DRIVE SHAFT
6520 TAIL ROTOR GEARBOX
6540 TAIL ROTOR DRIVE INDICATING SYSTEM

67 ROTORS FLIGHT CONTROL

6700 ROTORCRAFT FLIGHT CONTROL
6710 MAIN ROTOR CONTROL
6711 TILT ROTOR FLIGHT CONTROL
6720 TAIL ROTOR CONTROL SYSTEM
6730 ROTORCRAFT SERVO SYSTEM

71 POWERPLANT

7100 POWERPLANT SYSTEM
7110 ENGINE COWLING SYSTEM
7111 COWL FLAP SYSTEM
7112 ENGINE AIR BAFFLE SECTION
7120 ENGINE MOUNT SECTION
7130 ENGINE FIRESEALS
7160 ENGINE AIR INTAKE SYSTEM
7170 ENGINE DRAINS

72 TURBINE/TURBOPROP ENGINE

7200 ENGINE (TURBINE/TURBOPROP)
7210 TURBINE ENGINE REDUCTION GEAR
7220 TURBINE ENGINE AIR INLET SECTION
7230 TURBINE ENGINE COMPRESSOR SECTION
7240 TURBINE ENGINE COMBUSTION SECTION
7250 TURBINE SECTION
7260 TURBINE ENGINE ACCESSORY DRIVE
7261 TURBINE ENGINE OIL SYSTEM
7270 TURBINE ENGINE BYPASS SECTION

73 ENGINE FUEL & CONTROL

7300 ENGINE FUEL & CONTROL
7310 ENGINE FUEL DISTRIBUTION
7311 ENGINE FUEL-OIL COOLER
7312 FUEL HEATER
7313 FUEL INJECTOR NOZZLE
7314 ENGINE FUEL PUMP
7320 FUEL CONTROLLING SYSTEM
7321 FUEL CONTROL/ELECTRONIC
7322 FUEL CONTROL/CARBURETOR
7323 TURBINE GOVERNOR
7324 FUEL DIVIDER
7330 ENGINE FUEL INDICATING SYSTEM
7331 FUEL FLOW INDICATING
7332 FUEL PRESSURE INDICATING
7333 FUEL FLOW SENSOR
7334 FUEL PRESSURE SENSOR

74 IGNITION

7400 IGNITION SYSTEM
7410 IGNITION POWER SUPPLY
7411 LOW TENSION COIL
7412 EXCITER
7413 INDUCTION VIBRATOR
7414 MAGNETO/DISTRIBUTOR
7420 IGNITION HARNESS (DISTRIBUTION)
7421 SPARK PLUG/IGNITER
7430 IGNITION SWITCHING

75 AIR

7500 ENGINE BLEED AIR SYSTEM
7510 ENGINE ANTI-ICING SYSTEM
7520 ENGINE COOLING SYSTEM
7530 COMPRESSOR BLEED CONTROL
7531 COMPRESSOR BLEED GOVERNOR
7532 COMPRESSOR BLEED VALVE
7540 BLEED AIR INDICATING SYSTEM

76 ENGINE CONTROLS

7600 ENGINE CONTROLS
7601 ENGINE SYNCHRONIZING
7602 MIXTURE CONTROL
7603 POWER LEVER
7620 ENGINE EMERGENCY SHUTDOWN SYSTEM

77 ENGINE INDICATING

7700 ENGINE INDICATING SYSTEM
7710 POWER INDICATING SYSTEM
7711 ENGINE PRESSURE RATIO (EPR)
7712 ENGINE BMEP/TORQUE INDICATING
7713 MANIFOLD PRESSURE (MP) INDICATING
7714 ENGINE RPM INDICATING SYSTEM
7720 ENGINE TEMP. INDICATING SYSTEM
7721 CYLINDER HEAD TEMP (CHT) INDICATING
7722 ENG. EGT/TIT INDICATING SYSTEM
7730 ENGINE IGNITION ANALYZER SYSTEM
7731 ENGINE IGNITION ANALYZER
7732 ENGINE VIBRATION ANALYZER
7740 ENGINE INTEGRATED INSTRUMENT SYSTEM

78 ENGINE EXHAUST

7800 ENGINE EXHAUST SYSTEM
7810 ENGINE COLLECTOR/TAILPIPE/NOZZLE
7820 ENGINE NOISE SUPPRESSOR
7830 THRUST REVERSER

79 ENGINE OIL

7900 ENGINE OIL SYSTEM (AIRFRAME)
7910 ENGINE OIL STORAGE (AIRFRAME)
7920 ENGINE OIL DISTRIBUTION (AIRFRAME)
7921 ENGINE OIL COOLER
7922 ENGINE OIL TEMP. REGULATOR
7923 OIL SHUTOFF VALVE
7930 ENGINE OIL INDICATING SYSTEM
7931 ENGINE OIL PRESSURE
7932 ENGINE OIL QUANTITY
7933 ENGINE OIL TEMPERATURE

80 STARTING

8000 ENGINE STARTING SYSTEM
8010 ENGINE CRANKING
8011 ENGINE STARTER
8012 ENGINE START VALVES/CONTROLS

81 TURBOCHARGING

8100 EXHAUST TURBINE SYSTEM (RECIP)
8110 POWER RECOVERY TURBINE (RECIP)
8120 EXHAUST TURBOCHARGER

82 WATER INJECTION

8200 WATER INJECTION SYSTEM

83 ACCESSORY GEARBOXES

8300 ACCESSORY GEARBOXES

85 RECIPROCATING ENGINE

8500 ENGINE (RECIPROCATING)
8510 RECIPROCATING ENGINE FRONT SECTION
8520 RECIPROCATING ENGINE POWER SECTION
8530 RECIPROCATING ENGINE CYLINDER SECTION
8540 RECIPROCATING ENGINE REAR SECTION
8550 RECIPROCATING ENGINE OIL SYSTEM

MECHANICS CREED

UPON MY HONOR I swear that I shall hold in sacred trust the rights and privileges conferred upon me as a certified mechanic. Knowing full well that the safety and lives of others are dependent upon my skill and judgment, I shall never knowingly subject others to risks which I would not be willing to assume for myself, or for those dear to me.

IN DISCHARGING this trust, I pledge myself never to undertake work or approve work which I feel to be beyond the limits of my knowledge; nor shall I allow any non-certificated superior to persuade me to approve aircraft or equipment as airworthy against my better judgment; nor shall I permit my judgment to be influenced by money or other personal gain; nor shall I pass as airworthy aircraft or equipment about which I am in doubt, either as a result of direct inspection or uncertainty regarding the ability of others who have worked on it to accomplish their work satisfactorily.

I REALIZE the grave responsibility which is mine as a certified airman, to exercise my judgment on the airworthiness of aircraft and equipment. I, therefore, pledge unyielding adherence to these precepts for the advancement of aviation and for the dignity of my vocation.